

**Initial Study
and
Mitigated Negative Declaration
for
Owens Dry Lake
Phase 8 Dust Control Measures**



**Los Angeles Department of Water
Environmental Services
111 North Hope Street, Room 1044
Los Angeles, CA 90012**

July 2010

**CITY OF LOS ANGELES
OFFICE OF THE CITY CLERK
ROOM 395, CITY HALL
LOS ANGELES, CALIFORNIA 90012
CALIFORNIA ENVIRONMENTAL QUALITY ACT
MITIGATED NEGATIVE DECLARATION
(Article I, City CEQA Guidelines)**

LEAD CITY AGENCY:

Los Angeles Department of Water and Power (LADWP)
111 North Hope Street, Room 1044
Los Angeles, CA 90012

COUNCIL DISTRICT

N/A

PROJECT TITLE: Owens Dry Lake Phase 8 Dust Control Measures Project

CASE NO.

PROJECT LOCATION: The project site is located on Owens Dry Lake within Inyo County, California. Phase 8 Area A is located primarily on the Lone Pine 7.5 minute U. S. Geological Survey (USGS) quadrangle, approximately 5.4 miles south of Lone Pine. Phase 8 Area B is located east of Area A on the Dolomite 7.5 minute USGS quadrangle.

DESCRIPTION: LADWP is currently implementing the Owens Lake Dust Mitigation Program (OLDMP) in order to eliminate exceedences of the federal particulate matter (PM10) air quality standard. Phase 8 will expand the existing system of dust control measures on the lake by installation of a dust control measure called Gravel Cover on 2.03 square-miles of Owens Dry Lake area identified by GBUAPCD as emissive. The Phase 8 project will be implemented in compliance with the variance granted to LADWP by the Great Basin Unified Air Pollution Control District Hearing Board in 2009.

NAME AND ADDRESS OF APPLICANT IF OTHER THAN CITY AGENCY

FINDING:

See attached Initial Study.

SEE INITIAL STUDY FOR MITIGATION MEASURES IMPOSED

THE INITIAL STUDY PREPARED FOR THIS DOCUMENT IS ATTACHED

NAME OF PERSON PREPARING THIS FORM:

Laura Hunter

TITLE:

Environmental Specialist

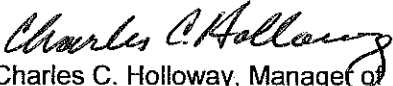
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July 14, 2010

CEQA Initial Study And Mitigated Negative Declaration

Owens Dry Lake Phase 8 Dust Control Measures

July 2010

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Section 1

Project and Agency Information

1.1 PROJECT TITLE AND LEAD AGENCY

Project Title:	Owens Dry Lake Phase 8 Dust Control Measures
Lead Agency Name:	Los Angeles Department of Water & Power
Lead Agency Address:	111 North Hope Street, Room 1044 Los Angeles, California 90012
Contact Person:	Mr. Charles Holloway
Contact Phone Number:	(213) 367-0285
Project Sponsor:	Same as Lead Agency

1.2 PROJECT BACKGROUND AND OBJECTIVES

The City of Los Angeles Department of Water and Power (LADWP) has prepared this Initial Study (IS) to address the impacts of construction and operation of the Owens Dry Lake Phase 8 Dust Control Measures (Phase 8 project). Phase 8 will expand the existing system of dust control measures on the lake by installation of a dust control measure called Gravel Cover, which has been approved by the local air regulator, the Great Basin Unified Air Pollution Control District (GBUAPCD) on 2.03 square-miles of Owens Dry Lake area that GBUAPCD has determined has the potential to be emissive¹. LADWP's objectives for the Phase 8 Project include controlling dust emissions from Owens Dry Lake to meet federal regulatory air quality standards in a manner that is consistent with the laws and the Constitution of the State of California, the Los Angeles City Charter and the public trust doctrine. Gravel Cover is one of three dust control measures GBUAPCD has determined are the "Best Available Control Measures" (BACM) for controlling dust emissions at Owens Dry Lake. The other two BACM are known as Shallow Flooding and Managed Vegetation. They are highly reliant upon water for efficacy.

The IS has been prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines, Title 14 California Code of Regulations (CCR) Section 15000 et seq. The IS serves to identify the site-specific impacts, evaluate their potential significance, and determine the appropriate document needed to comply with CEQA. For this project, LADWP has determined, based on the information reviewed and contained herein, that the proposed Phase 8 project could potentially have a significant environmental impact, but that mitigation measures can be implemented to

¹ Emissive areas are areas on the Owens Lake playa that produce dust emissions. This determination can be based on a combination of calculated sand fluxes, visible dust plume observations, and visible surface erosion after dust storm events (GBUAPCD, 2008a).

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alleviate the impacts to a level of less than significant. Based on this IS, a Mitigated Negative Declaration (MND) is the appropriate CEQA document. Staff recommends that the City of Los Angeles Board of Water and Power Commissioners adopt this IS/MND for the proposed project.

1.2.1 Project Background

LADWP is currently implementing the Owens Lake Dust Mitigation Program (OLDMP) in order to eliminate exceedances of the federal particulate matter (PM₁₀) air quality standard². LADWP constructs and operates dust control measures (DCMs) on the lake in compliance with orders issued by GBUAPCD under the authority of Cal. Health & Safety Code Sec. 42316, legal settlement agreements with GBUAPCD, lease agreements for use of state lands (administered by the California State Lands Commission (CSLC)), and other regulatory approvals.

Phases 1 and 2 (Habitat Shallow Flood, Managed Vegetation, and Shallow Flood), Phases 4 and 5 (Shallow Flood and Gravel), and most of Phase 7 (Channel, Drip, Moat and Row, and Shallow Flood) of the OLDMP have been constructed and are operational (**Figure 2**). [Note, there is no Phase 6 of the OLDMP; Phase 3 was the installation of roads and pipelines.] However, a 3.5-square-mile area of Phase 7, proposed for Moat and Row, has not yet been constructed. A lease from CSLC for Moat and Row DCM was received in December 2009 for area T1A-1 (approximately 0.4 square miles of sand fence only); construction of this area is due to be complete by October 2010. In April 2010, CSLC denied issuing a lease for Moat and Row DCMs on the remaining 3.1 square miles. CSLC issued an offer of lease on June 28, 2010 for tillage of this 3.1-square-mile area as an interim measure. The tillage project on this Phase 7 area has not yet been approved by the Air Pollution Control Officer for GBUAPCD.

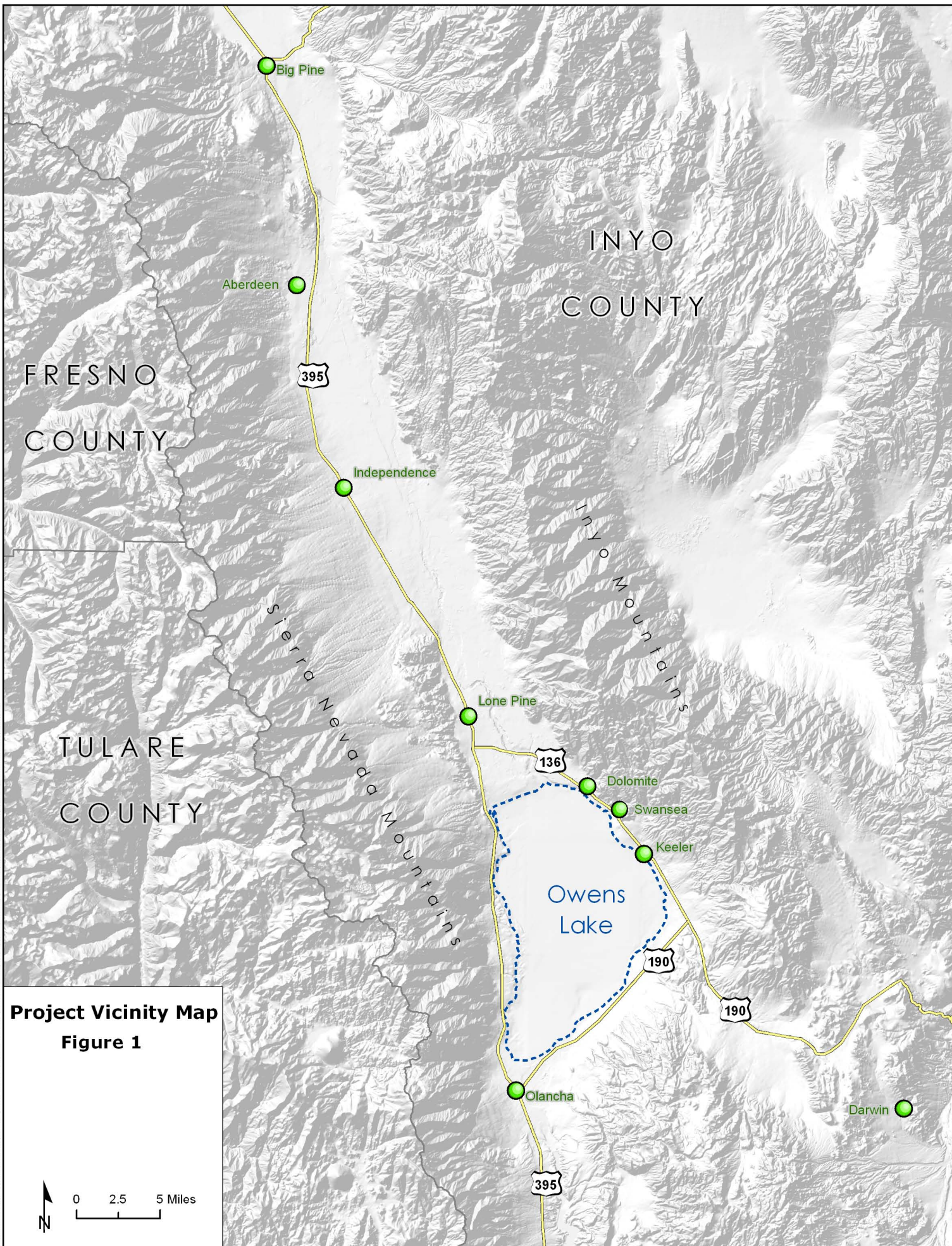
Therefore, due to the delay in implementation of a small portion of Phase 7, LADWP submitted a variance petition to the GBUAPCD Hearing Board on August 21, 2009 requesting a 1-year time extension for completion of 3.5 square miles of the Moat and Row DCM. Consistent with the variance, the proposed action is implementation of Gravel Cover Best Available Control Measure (BACM) on 2.03 square miles of area identified by GBUAPCD as emissive; the boundaries of the area were provided to LADWP by GBUAPCD in December 2009 (T. Schade pers. comm., 2009).

1.2.1.1 Selection of Gravel Cover BACM for Phase 8

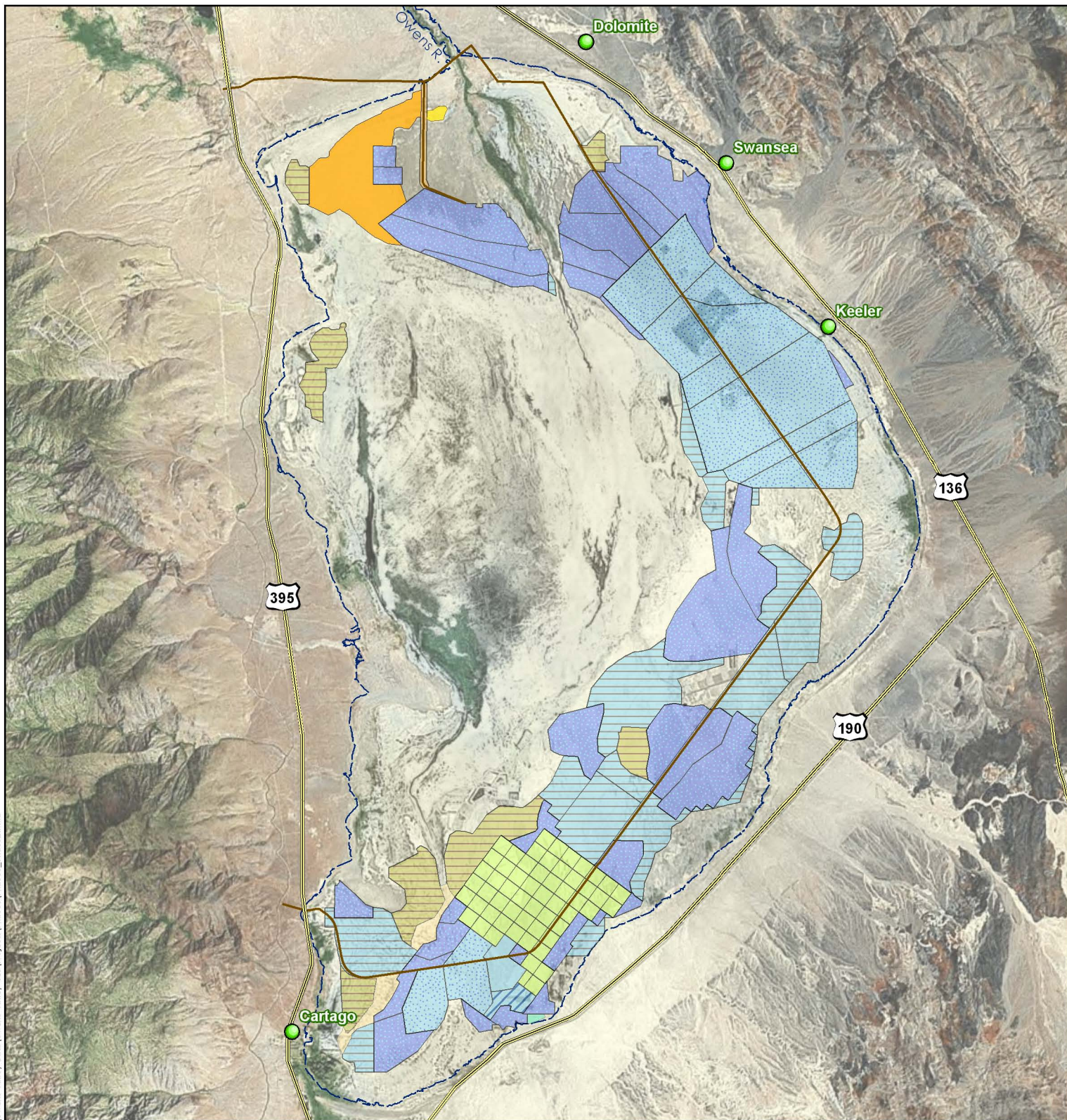
Shallow Flooding, Managed Vegetation, and Gravel Cover are approved DCMs for Owens Dry Lake. LADWP considered each of the DCMs in order to determine the best available control strategy for the Phase 8 area. The estimated water use associated with the approved BACMs varies. As of July 2010, LADWP has installed and is operating 39.5 square miles of DCMs on Owens Dry Lake playa which use approximately 95,000 acre-feet per year (AFY) of water from the Los Angeles Aqueduct.

² Particulate matter (PM) consists of varying combinations of dry solid fragments, solid cores with liquid coatings and small droplets of liquid. These tiny particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil and dust. PM₁₀ are particles up to 10 microns in size. The Federal PM₁₀ standard is 150 ug/m³ as a 24-hour average.

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Project Vicinity Map
Figure 1



**Owens Dry Lake Dust Mitigation Program
Phases 1 through 7 and Proposed Phase 8
Figure 2**

--- Historic Shoreline
— Mainline

0 0.5 1 Miles

Phases 1 & 2

Habitat Shallow Flooding
Managed Vegetation
Ponding
Shallow Flooding

Phases 4 & 5

Gravel
Shallow Flooding

Phase 7

Channel
Drip Irrigation

Phase 7

Moat and Row (Original Proposal - Actual DCM To Be Determined)

Shallow Flooding

Phase 8

Area A (1.97 Sq. Mi.)
Area B (0.06 Sq. Mi.)

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Shallow Flooding for the Phase 8 area would require an additional 5,120 AFY, or enough water to supply over 46,000 residents in the City of Los Angeles annually (LADWP, 2005). LADWP determined that the projected water demand for Shallow Flooding was not accounted for in its 2005 Urban Water Management Plan (UWMP). Furthermore, the LADWP determined that Phase 8 is a “project” pursuant to California State Water Code Section 10912 based on the assumption that the 5,120 AFY of demand associated with the operation of the Shallow Flooding BACM is greater than the amount of water required by a 500 dwelling unit project. In accordance with Section 10910 of the Water Code, LADWP prepared a water supply assessment to evaluate whether the LADWP’s existing and planned water supplies would be sufficient to meet the water demands associated with Shallow Flooding for Phase 8, as well as the existing and planned future demands in the LADWP service area for the next 20 years under specified hydrologic conditions.

The water supply assessment’s findings indicate that there is insufficient surplus water supply available for LADWP to continue to implement Shallow Flooding as a DCM on Owens Dry Lake (LADWP, 2010a in prep). Managed vegetation typically requires approximately one-third of the amount of water used for Shallow Flooding or approximately 1,705 AFY for the Phase 8 area; however, much of the Phase 8 area is unsuitable for growing vegetation (LADWP, 2010a). The Gravel Cover BACM alternative would require minimal water for dust control during construction. Aside from periodic dust control during maintenance, operation of the Gravel BACM does not require water. Based on the limited supply of surplus water, Gravel Cover was selected as the feasible BACM for the Phase 8 project. For the following reasons, LADWP determined additional water to control dust is infeasible:

- **Water Supply Assessment** – Per the findings of the Water Supply Assessment completed for the project, there is insufficient surplus water supply available for LADWP to continue to implement Shallow Flooding as a DCM on Owens Dry Lake.
- **City Charter** – One of LADWP’s primary missions is to serve water to the City of Los Angeles. Under Section 673 of the Los Angeles City Charter, LADWP is prohibited from selling, leasing, or disposing of the City’s water rights without the assent of the voters. To the extent that LADWP supplies water outside of the City limits, it must be considered surplus and not required for the use of the consumers served by the City within its limits. Since the City is currently on water restrictions, Owens Dry Lake is receiving surplus water, and gravel is an approved BACM for dust control, LADWP has determined that use of additional water for dust control on Owens Dry Lake would be inconsistent with the City Charter.
- **State Constitution** – The State Constitution requires that water be put to beneficial use. It states, “...the water resources of the State be put to beneficial use to the fullest extent of which they are capable, and that the waste or unreasonable use or unreasonable method of use of water be prevented, and that the conservation of such waters is to be exercised with a view to the reasonable and beneficial use thereof in the interest of the people and for the public welfare” (Cal. Const., Art. X, § 2).

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- Since LADWP has demonstrated that there is another approved method to control dust without using additional water, Gravel Cover was identified as the BACM for the Phase 8 dust control project.

In addition to meeting the GBUAPCD's requirements for dust control efficiencies, waterless DCMs such as Gravel Cover provide ancillary benefits of preserving the State's water resources and are consistent with the laws and Constitution of the State of California and the Los Angeles City Charter.

1.2.1.2 Previous Environmental Documentation

To analyze the environmental effects of the Owens Valley PM₁₀ Planning Area Demonstration of Attainment State Implementation Plan (SIP) (GBUAPCD, 2008a), the GBUAPCD prepared and certified a Final Subsequent Environmental Impact Report (2008 SIP FSEIR) (GBUAPCD, 2008b) on February 1, 2008 and authorized the implementation of 15.1 square miles of DCMs within the Owens Lake Planning Area. As noted above, approximately 3.5 square miles of this area was proposed for construction of Moat and Row DCMs. LADWP prepared and certified a Supplemental EIR for the Owens Lake Revised Moat and Row DCMs in 2009 (LADWP, 2009a) which tiered off the 2008 SIP FSEIR to address changes to the design and operation and maintenance plan for the Moat and Row DCMs. An Addendum to the Moat and Row SEIR was prepared by LADWP in May 2010 to address the change in the project description to add tillage.

The proposed project includes gravel coverage on 2.03 square miles within the Phase 8 boundaries, as identified by GBUAPCD in December 2009. Of the 15.1 square miles of DCMs described in the 2008 SIP, 1.9 square miles were identified as Study Area of which some or all may require controls after 2010. A portion of the currently proposed Phase 8 area was included in the 1.9 square miles identified as Study Area for the 2008 SIP but not proposed for any specific DCMs. The 2008 SIP Study Area designation in this northwest area of the lake is approximately 0.72 square miles; of this area, approximately 0.65 square miles overlap with Phase 8 Area A. The currently proposed 2.03 square miles is the subject of this additional environmental review.

1.2.2 Phase 8 Project Objectives

The overall goal of the OLDMP is attainment of the federal air quality standards in the Owens Valley Planning Area in a manner consistent with other applicable state and federal laws. The Phase 8 project will be implemented in compliance with the variance granted to LADWP by the Great Basin Unified Air Pollution Control District Hearing Board in 2009. The goal of the Phase 8 project is to reduce dust emissions from 2.03 square-miles of emissive land on Owens Dry Lake in support of the attainment of the federal air quality standards in a manner consistent with other applicable state and federal laws.

1.3 PROJECT LOCATION AND ENVIRONMENTAL SETTING

The 2.03-square-mile Phase 8 dust mitigation area is located in the northwest section of the 110-square-mile dry Owens Dry Lake which is part of the larger Owens Valley Planning Area, in Inyo County, California (**Figures 1, 2, and 3**). Owens Dry Lake is bounded by State Route (SR) 136 to the north and east, SR 190 to the south, and U.S. Highway (U.S.) 395 to the west. Phase 8 Area A is located primarily on the Lone Pine 7.5 minute U. S. Geological Survey (USGS) quadrangle and the latitude/longitude of the approximate center of the area is 36.523227°N/-118.009159°W (North American Datum 1983 UTM Zone 11N). Phase 8 Area B is located on the Dolomite 7.5 minute USGS quadrangle; the latitude/longitude of the approximate center of the area is 36.536761°N /-117.987107°W. The nearest development is in Lone Pine, approximately 5.4 miles north of the project site. Other nearby communities include Swansea, Dolomite and Keeler to the east and Cartago and Olancho to the south.

The Phase 8 area is primarily barren playa and devoid of vegetation with the exception of the northeastern and southeastern boundaries of the project area. Sparse vegetation (estimated at less than 1 percent cover) is found near those boundaries and east of gravel Corridor 1 at the end of the Lower Owens River Delta Habitat Area.

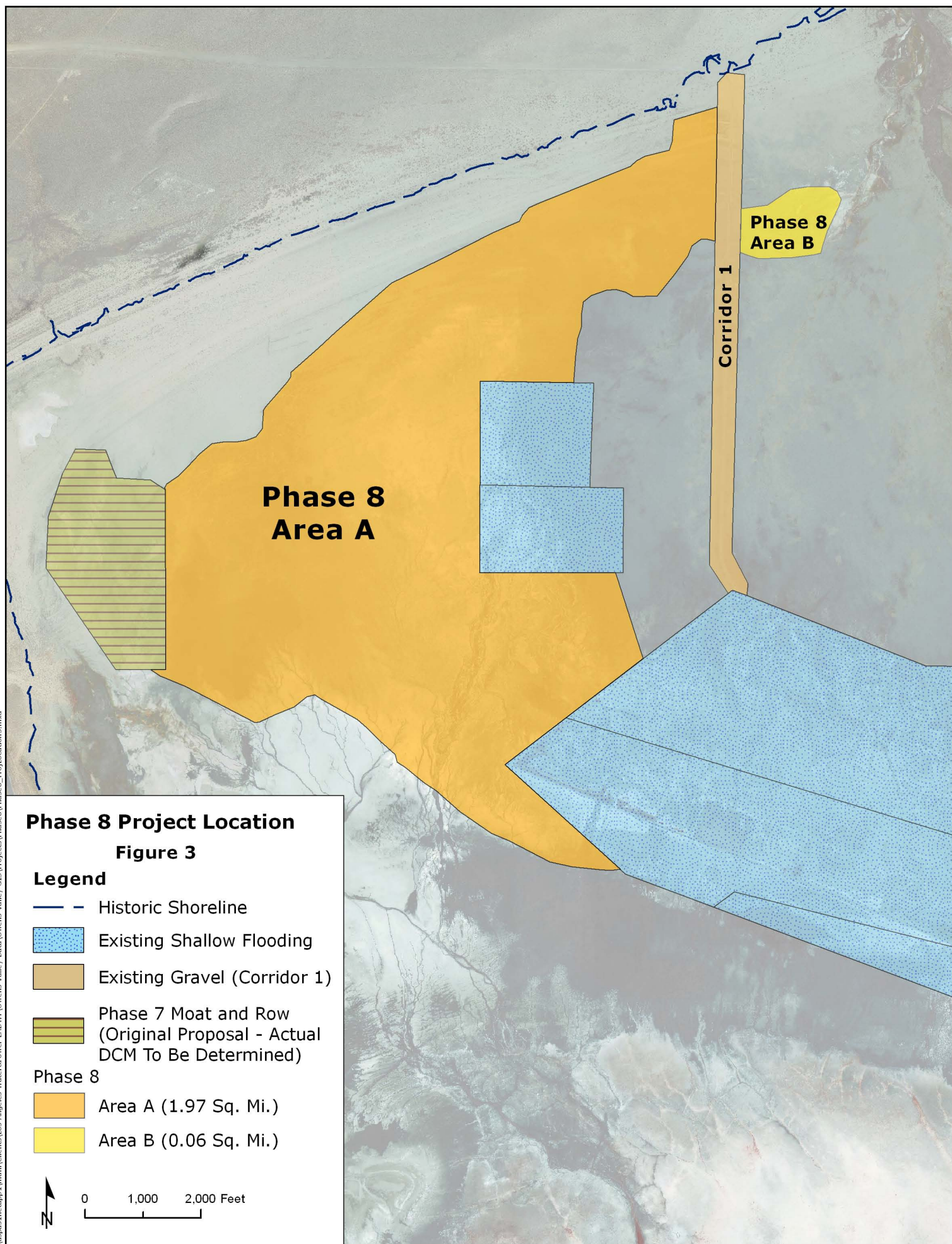
1.4 PROJECT DESCRIPTION

Under the Phase 8 project, LADWP will install a 4-inch layer of coarse gravel to the surface of the Owens Dry Lake playa to reduce PM₁₀ emissions by: (a) preventing the formation of efflorescent evaporite salt crusts, because the large pore spaces between the gravel particles disrupt the capillary movement of saline water to the surface where it can evaporate and deposit salts; and (b) creating a surface that has a high threshold wind velocity so that direct movement of the large gravel particles is prevented and the finer particles of the underlying lakebed soils are protected.

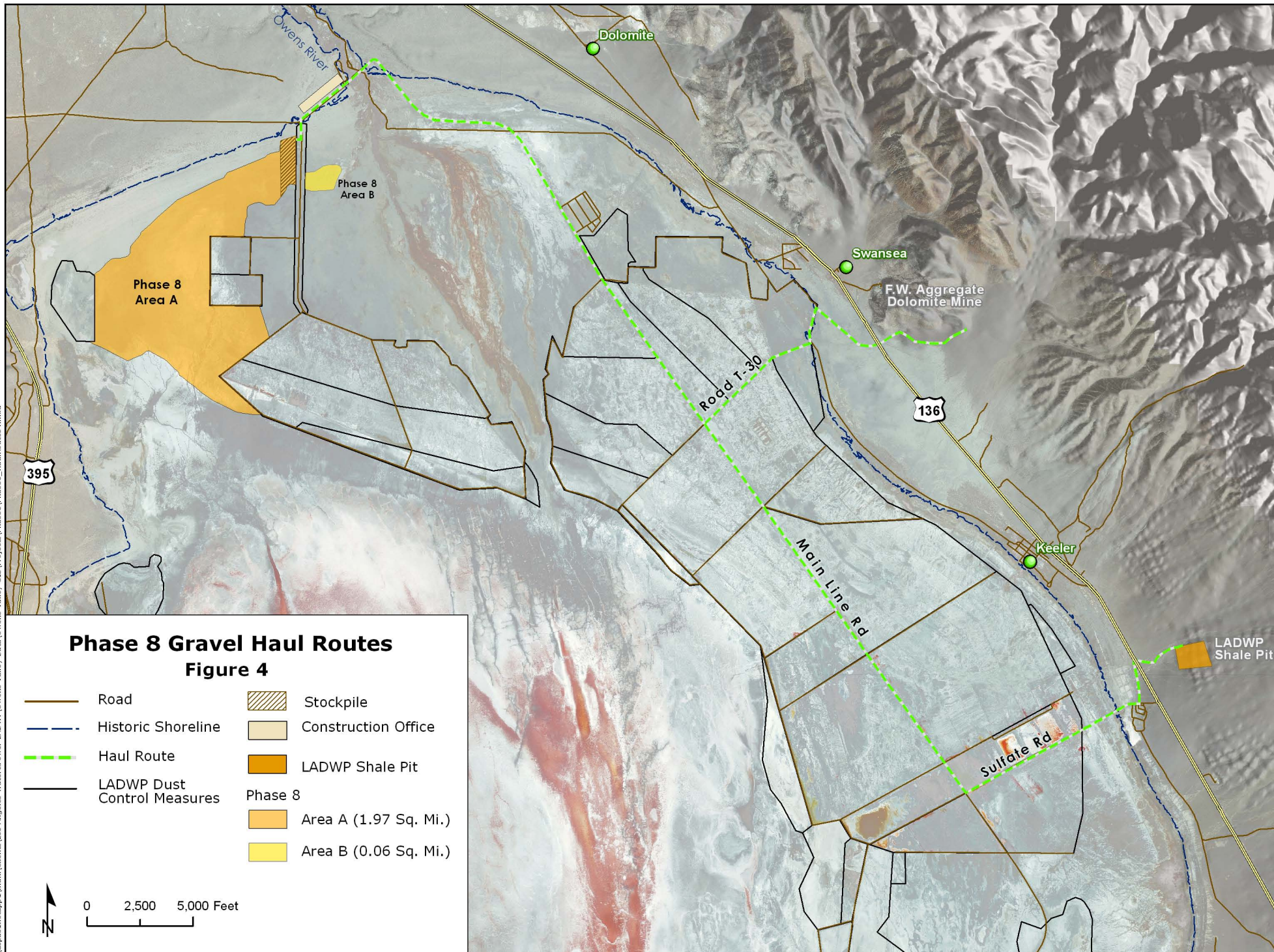
1.4.1 Project Components

1.4.1.1 Gravel Cover

The term “gravel” includes clasts from both fluvial and alluvial sources and crushed stone. Pursuant to the specifications issued by GBUAPCD, the playa of the Phase 8 area will be covered with a 4-inch-thick layer of gravel screened to greater than 1/2-inch in diameter (GBUAPCD, 2008a). Approximately 1.04 million tons of gravel will be distributed within the Phase 8 boundaries (1.01 million tons in Area A and 0.03 million tons in Area B). At this time, it is anticipated that gravel will be obtained from local gravel production operations such as the LADWP shale pit and the Federal White Aggregate (F.W. Aggregate) Dolomite mine (**Figure 4**). The LADWP Shale pit is located just west of the Keeler Fan gravel site – a site previously considered as a gravel source and referenced in the Memorandum of Agreement between LADWP and GBUAPCD (1998 MOA).



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The LADWP shale pit is located east of SR 136, approximately 1.5 miles southeast of Keeler, and less than 2 miles from the lakebed. The shale pit is located on public lands managed by the U.S. Bureau of Land Management (BLM) and operated per the requirements of the Surface Mining and Reclamation Act (SMARA). Shale is a fine-grained sedimentary rock consisting of compacted and hardened clay, silt, or mud, and at this location, is generally dark brown in color. The shale pit is currently permitted for 40 acres of development (approximately 200,000 – 400,000 tons of shale), with potential for expansion.

The F.W. Aggregate Dolomite mine is a privately owned commercial aggregate facility located in Dolomite, California, 0.75 miles southeast of Swansea. The access point for the mine is directly off SR 136, between Swansea and Keeler. The Dolomite mine is situated on both privately owned lands and public lands managed by the BLM. Three subareas of the mine (Durability, North Pole, and Translucent) total approximately 480 acres and are able to produce up to 50 million tons; the site is permitted up to the year 2057 (T. Lopez, pers. comm., June 25, 2010). Rock at the F.W. Aggregate site is obtained from a dolomitic limestone source (mountain face), which is blasted and crushed to supply primarily white decorative rock. The existing 0.14 square miles of Gravel Cover DCM area (Corridor 1 which separates Phase 8 Areas A and B) was covered with limestone from the Dolomite mine. This source has also supplied other areas on the lakebed where gravel and rip-rap were necessary for road construction and for armoring of berms.

Per the terms of the 1998 MOA, gravel used for dust control on Owens Dry Lake shall be comparable in coloration to the lakebed soils. Consistent with this requirement, shale and dolomite will be blended as necessary so that the color of the mixed gravel will blend in with the surrounding landscape to the maximum extent feasible.

Effectiveness of Gravel Cover. The following information is summarized from the 2008 SIP (GBUAPCD, 2008a).

According to GBUAPCD, gravel blankets (also known as Gravel Cover) are effective at controlling dust emissions on essentially any type of soil surface. A gravel layer forms a non-erodible surface when the size of the gravel is large enough that the wind cannot move the surface. If the gravel surface does not move, it protects finer particles from being emitted from the surface. Gravel and rock coverings have been used successfully to prevent wind erosion from mine tailings in Arizona (Chow and Ono, 1992).

GBUAPCD estimated the potential PM₁₀ emissions from a gravel layer using the U.S. Environmental Protection Agency (USEPA) emission calculation method for industrial wind erosion for wind speeds above the threshold for the surface (GBUAPCD, 2008a). PM₁₀ will not be emitted if the wind speed is below the threshold speed. With a minimum particle size of ½ inch, a gravel layer will have a threshold wind speed of more than 90 miles per hour measured at 10 meters (USEPA, 1992; Ono and Keisler, 1996). GBUAPCD predicted that PM₁₀ emissions would be virtually zero for a gravel layer since the threshold wind speed to entrain gravel, and thus PM₁₀, is above the highest wind speeds expected for the area. A 100 percent reduction of PM₁₀ from areas that are covered by gravel was predicted.

The proposed 4-inch thick gravel layer is intended to prevent capillary movement of salts to the surface. Fine sands and silts that fill in void spaces in the gravel will allow the capillary rise of salts and reduce the effectiveness of a gravel layer to control PM₁₀ at Owens Lake. In addition, finer particles will lower the average particle size and lower the threshold wind speed for the surface. GBUAPCD performed small-scale gravel test plots at two sites on Owens Dry Lake starting in June 1986. These tests showed that 4-inch thick gravel blankets composed of ½- to 1½-inch and larger rocks prevented capillary rise of salts to the surface. Observations of ungraveled test plots in the same area, one with no surface covering and another with local unscreened, unsorted alluvial soil, showed that salts would otherwise rise to the surface (Cox, 1996).

1.4.1.2 Permeable Geotextile Fabric

For the Phase 8 project, Gravel Cover will be placed over an approximately 2-millimeter (mm) thick geotextile fabric to prevent gravel from settling into lakebed sediments and thereby losing effectiveness in controlling dust emissions. The permanent geotextile will be permeable to allow draining. Geotextile membranes are artificial fabrics that have a variety of uses including: filtration/drainage, ground stabilization, structural waterproofing, land containment, as well as weed and root control. The geotextile is chemically inert and generally not affected by acids and alkalis that may be present in the soils.

1.4.1.3 Corridor 1 Improvement

To allow for haul trucks traveling in two directions to the stockpile area, the width of the most northerly 0.3 miles of Corridor 1 will be increased from 12 feet to 30 feet to the east (**Figure 4**). The expansion of Corridor 1 will require the addition of approximately 6,000 tons of road base. It is anticipated that necessary materials will be obtained from the LADWP Shale Pit.

1.4.1.4 Berms

Phase 8 Area A will be protected from periodic high flows from the Owens River from existing Corridor 1 which is raised and armored. However, the north and south boundaries of Area A will be bermed for wind protection to limit sand inundation of the gravel. For Phase 8 Area B, a berm will be constructed around the area for wind protection and to prevent inundation and gravel washout during high flows. The berms will be earthen, approximately 3 feet high, approximately 12 feet wide and armored with gravel.

1.4.2 Project Construction

Construction of the Phase 8 project is estimated to occur over 20 months and to include the activities described below and summarized in **Table 1**:

- Expansion of the most northerly portion of Corridor 1 roadway
- Development of gravel stockpile area
- Installation of berms
- Gravel conveyance
- Geotextile installation

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- Gravel installation
- Maintenance

Corridor 1 Expansion. The most northerly 0.3 miles of Corridor 1 will be increased from 12 feet to 30 feet. Roadway expansion will be completed in the initial month of construction activity and will include the addition of approximately 6,000 tons of shale on top of the existing dolomite base.

Table 1
Phase 8 Dust Control Measures Summary of Estimated Construction Activity

Activity	Duration (months)	Vehicles and Equipment	Personnel
Road Widening near Stockpile	1	Dozer (3)	Dozer operator (3)
Stockpile Preparation	3	Dozer (3)	Dozer operator (3)
Berms	3-4	Dozer (2)	Dozer operator (2)
Gravel delivery to stockpile	19	Dump truck (25 cubic yard haul trucks) (40) Dozer (3) Fuel trucks (2) Loaders (3)	Truck driver (42) Dozer operator (3) Loader operators (3)
Gravel delivery from stockpile to Phase 8 area	19	Dump Trucks (5-10 cubic yard low ground pressure vehicles) (40)	Truck driver (40)
Geotextile and Gravel application	18	Flatbed truck (2) Backhoe, farm tractor, or dozer for geotextile (2) D6 Dozers for gravel (10)	Truck driver (2) Backhoe operator (2) Dozer operator (10) Grounds worker (8)
All	20	Water truck (3) Light duty trucks (5)	Water truck operator (3) Drivers (5)

Gravel Stockpile. The stockpile area will be located within the northeast corner of the Phase 8 project boundaries (**Figure 4**). This 40-acre site will be covered with aggregate to prepare the site for gravel deliveries during the initial months of construction. Gravel will be stockpiled in approximately 400 feet lengths, each less than 10 feet high. Dump trucks will deposit gravel and a dozer will be used to form the pile. An estimated 40 trucks will be used to bring material to the stockpile location. Assuming 25 tons per truck and 130 truck loads per day (using approximately 40 individual trucks), approximately 3,250 tons per day will be transported to the stockpile location. With approximately 200 work days per year, 650,000 tons of gravel could be transported per year. Gravel transport will continue throughout the construction period concurrent with geotextile fabric and gravel installation. From the stockpile location, low ground pressure (LGP) vehicles will be used for travel directly on the playa.

Berms. Installation of earthen berms on the north and south boundaries of Area A and around the perimeter of Area B will include earthwork from up to 75 feet from the inside of the boundary of the areas. Shale, and potentially dolomite, would then be installed on top of the earthen berm.

Section 1 – Project and Agency Information

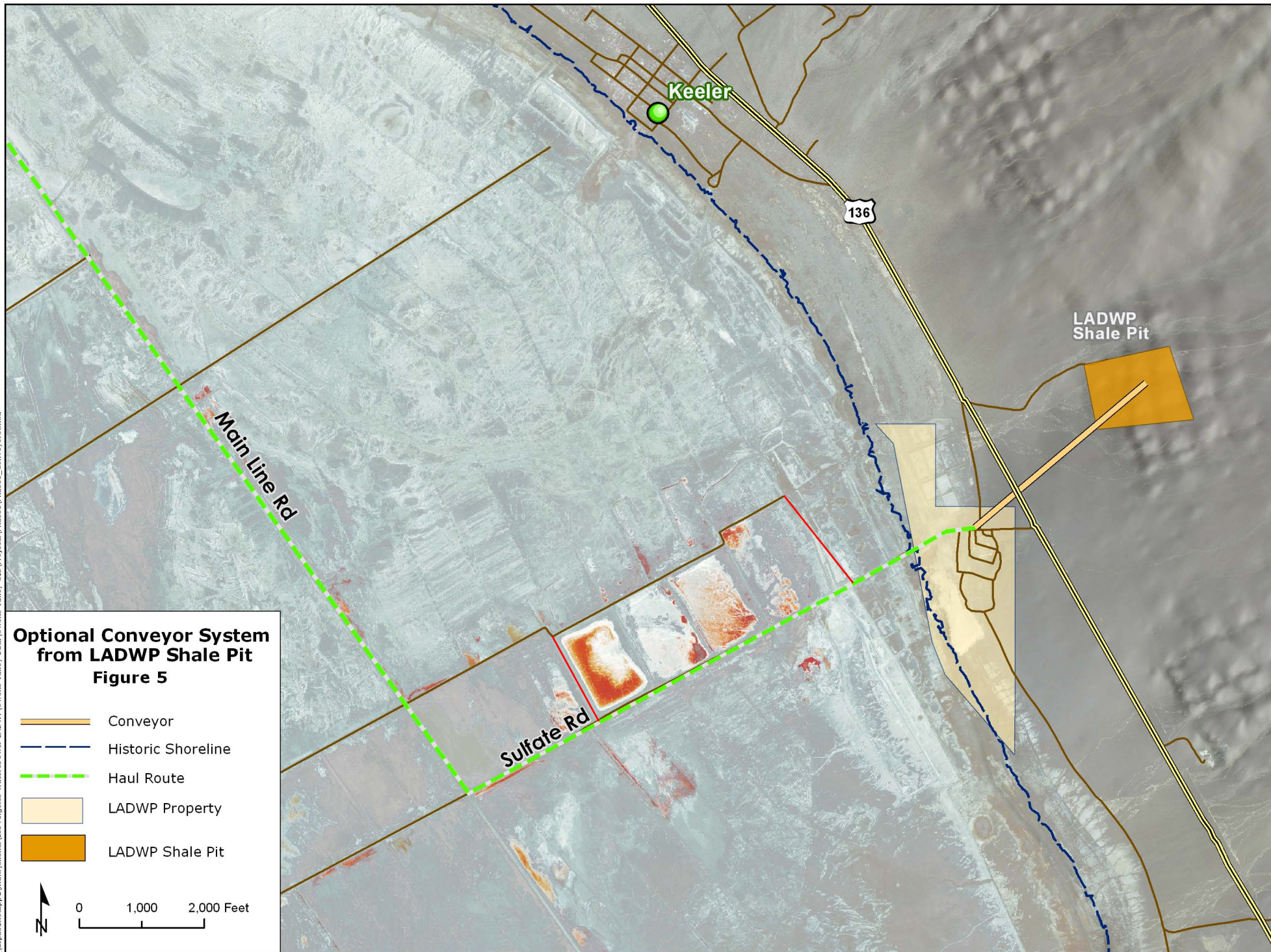
Gravel Conveyance. Gravel will be conveyed from the shale pit to the stockpile location by truck or conveyor system. Without the conveyor, trucks will travel from the shale pit across SR 136 to Sulfate Road to Main Line Road to the stockpile (**Figure 4**). Return travel to the shale pit will be along the same path. The total distance of 12.6 miles would result in an approximate circuit time, including loading and dumping, of 95 minutes.

If a conveyor is installed from the mine across SR 136 to the LADWP Sulfate Facility, the truck travel distance is reduced to 11.4 miles and estimated circuit time would be 70 minutes (**Figure 5**). The conveyor system would consist of an approximately 4-foot-wide belt moving at 5 to 9 feet per second and a 900 horsepower (hp) electric motor. The motor is used to start the conveyor; once loaded, the motor will become a generator and power will be returned to the power distribution system on the lake (overall, the conveyor system would be a net generator of power). A new transformer and several power poles will also be installed on LADWP property as part of its operation. At the crossing with SR 136, the conveyor would be installed on BLM property and within the California Department of Transportation (Caltrans) right-of-way in a culvert (approximately 10 feet diameter) under the roadway. To install the culvert, approximately 500 feet would be disturbed on the north/eastern (mine) side of SR 136 and approximately 200 to 300 feet would be disturbed on the south/western (lake) side of the roadway. The conveyor will be elevated on footings (metal with concrete foundations) and fencing and shielding will be installed for safety protection (in compliance with applicable MSHA and OSHA regulations). When carrying a full gravel load, the conveyor will transport 250 tons over 4,000 feet of length (approximately 125 pounds per foot) and take 8 minutes to clear.

From the Dolomite mine, trucks will travel on the Dolomite quarry haul road, cross SR 136 to the T-30 Road, and then to Main Line Road to the stockpile. The total distance of 9.0 miles will result in an approximate circuit time, including loading and dumping, of 75 minutes.

Geotextile Installation. Prior to installation of the geotextile membrane, minor land leveling may be required in areas where obstructions will damage the fabric. A pipe dragged behind a tractor will remove flow lines and prepare the surface; there will be no import or export of soils related to this minor site preparation. It is assumed that the fabric will be delivered to the site on spools carried by flatbed trucks. Small areas of fabric will be rolled out and staked to secure them prior to gravel installation.

Gravel Installation. The vehicle and equipment staging area will be located at the construction office near the intersection of Main Line Road and Corridor 1, less than 1 mile from the Phase 8 project site (**Figure 4**). This area has been previously disturbed and has 20 acres available for staging activities. [Note that existing revegetation areas north and east of the existing fenceline will not be disturbed.] No vehicle fuels or oils will be stored in the gravel stockpile area; fuel trucks will be used to refuel construction equipment and gravel haul trucks and the existing fueling station at the Sulfate Facility will be available. Additionally, a temporary aboveground fuel tank will be installed at the construction office just northeast of the site to serve the fuel trucks. Once the geotextile is staked, dozers and ground crews will spread gravel to the required 4-inch thickness. It is assumed that geotextile fabric and gravel installation will proceed at two different areas concurrently and that construction will be completed over 18 months.



Section 1 – Project and Agency Information

The onsite construction workforce will consist of laborers, supervisory personnel, support personnel, and construction management personnel. The onsite workforce is expected to reach a maximum of approximately 125 workers during the gravel and geotextile installation.

1.4.3 Operations

Once the Gravel Cover has been applied to the playa, limited maintenance will be required to preserve the gravel blanket. The gravel will be visually monitored for sand and dust accumulation, evidence of washouts, or inundation. If any of these conditions are observed over a substantial area, additional gravel will be transported to the playa. It is assumed that no maintenance will be needed in the initial years of operation. Thereafter, assuming 2 percent replacement per year, approximately 20,000 tons per year of gravel will be required for ongoing maintenance at the Phase 8 areas. This allows for complete gravel replacement once every 50 years.

1.5 APPLICABLE PLANS AND POLICIES

The project sites are located on CSLC-administered lands within Inyo County. Inyo County designates the land use of the Phase 8 area as SFL (State and Federal Lands). The zoning overlay is OS-40 (Open Space, 40-acre lot minimum).

1.6 PROJECT APPROVALS

As an approved BACM, the proposed Phase 8 Gravel Cover project is consistent with the 2008 SIP certified by GBUAPCD and the California Air Resources Board (CARB). As a condition of the variance issued by the Great Basin Unified Air Pollution Control District Hearing Board in 2009, LADWP stipulated to the issuance of an order for Phase 8 after its completion of the environmental analysis for this project. Upon issuance of that Order, no further approvals from GBUAPCD are required. Permits and approvals from other agencies are anticipated to include:

- A lease for use of state lands will be required from the CSLC prior to project construction.
- Consistent with the previous DCMs installed on Owens Dry Lake, a Lake or Streambed Alteration Agreement per Section 1602 of the Fish and Game Code will be sought from the California Department of Fish and Game (CDFG).
- Consistent with the previous DCMs installed on Owens Dry Lake, a Section 404 Permit will be sought from the U.S. Army Corps of Engineers.
- Construction of the Phase 8 project will be completed in compliance with the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES NO. CAS000002). Per the General Permit, a Storm Water Pollution Prevention Plan (SWPPP) incorporating best management practices (BMPs) for erosion control will be developed and implemented during project construction.
- Use of the right-of-way for SR 136, including potential installation of the conveyor system, would require approval from BLM and an encroachment permit from Caltrans.

Section 1 – Project and Agency Information

- Additionally, installation of the fuel tank at the construction office to serve the haul trucks will require compliance with:
 - 1) Permit to Operate (1316-00-06) – An air quality permit from GBUAPCD related to vapor recovery.
 - 2) CUPA Facility Permit – A hazardous material/waste permit and associated contingency and business plan from the Inyo County Department of Environmental Health Services.
 - 3) Spill Prevention Control and Countermeasure (SPCC) Plan – For aboveground oil tanks of 1,320 gallons or more, and for fuel trucks when fuel will be left in the truck overnight. The Plan is filed with the Inyo County Department of Environmental Health Services.

Section 2

Environmental Analysis

2.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Population and Housing
<input type="checkbox"/> Agricultural Resources	<input type="checkbox"/> Hazards and Hazardous Materials	<input type="checkbox"/> Public Services
<input type="checkbox"/> Air Quality	<input type="checkbox"/> Hydrology and Water Quality	<input type="checkbox"/> Recreation
<input type="checkbox"/> Biological Resources	<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Transportation and Traffic
<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Utilities and Service Systems
<input type="checkbox"/> Geology and Soils	<input type="checkbox"/> Noise	<input type="checkbox"/> Mandatory Findings of Significance

2.2 AGENCY DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature: Charles C. Holloway

Title: Manager of Environmental Assessment and Planning

Printed Name: Charles C. Holloway

Date: July 14, 2010

Section 2 – Environmental Analysis

2.3 ENVIRONMENTAL CHECKLIST

2.3.1 Aesthetics

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion: The Owens Valley is straddled by the eastern Sierra Nevada to the west and the Inyo Mountains to the east, with the Coso Range rising to the south. The valley floor is interspersed with small, rural communities (e.g., Cartago, Olancho, Keeler) surrounded by dry, desert environment with minimal vegetation. Under existing conditions, views of Owens Dry Lake are characterized by pockets of desert vegetation, limited vegetated areas related to seeps and springs and the Delta, vast areas of desert playa, mining operations, the brine pool (which fluctuates in size) and the existing system of DCMs – bermed areas periodically filled with water, areas of managed vegetation and the internal roadway network.

a) and c) **Less than Significant Impact.** The Phase 8 project site is located on the open space of Owens Dry Lake. The lakebed primarily consists of dry, desert grayish to light brown sand with pockets of dry vegetation primarily located along the western, outer edge of the lakebed. Views of standing water are present (brine pool and within the bermed Shallow Flooding areas), although the wetted acreage fluctuates seasonally. There are no major landform features or rock outcroppings in the lakebed. Views from adjacent roadways are described below:

- U.S. 395 is the primary north-south motor vehicle route through the Owens Valley and eastern Sierra Nevada. At its closest point, the Phase 8 area is approximately 0.5 miles east of U.S. 395. Motorists traveling northbound and southbound can view desert landscape and dry vegetation in the foreground, the Inyo Mountains in the distant background, and the Owens dry lakebed in middle-ground views.
- SR 136 is a northwest-southeast route, used to access Death Valley National Park and U.S. 395. At its closest point, the Phase 8 area is approximately 2 miles west of SR 136. Motorists traveling northwest or southeast have mostly unimpeded views of the lakebed. Desert landscape and dry vegetation dominate the foreground, the lakebed can be seen in

the middle-ground, and the Sierra Nevada creates a panoramic view in the distant background.

- SR 190 is the primary northeast-southwest route used to access Death Valley National Park from U.S. 395. SR 190 converges with SR 136 and forms the eastern boundary of south half of Owens Dry Lake. At its closest point, the Phase 8 area is more than 10 miles northwest of SR 190. Motorists traveling to the northeast or southwest have unimpeded views of the open lakebed. Desert landscape and dry vegetation can be seen in the foreground, the lakebed dominates the middle-ground, and the Sierra Nevada creates a panoramic view in the distant background.

Visual Impacts During Construction. Construction activities for the project include site preparation of the 2.03 square miles (selective land leveling to prepare the surface for installation of the geotextile membrane), preparation of the stockpile area, berm installation, expansion of the northerly 0.3 miles of Corridor 1 from 12 feet to 30 feet in width, installation of the geotextile and gravel layer, haul trips to and from the mines, and potentially earthwork necessary to tunnel the conveyor system under SR 136 and operation of the conveyor. Views of the project site during construction will include up to approximately 125 vehicles – primarily dozers, water trucks, and gravel haul trucks. Within the context of the construction and maintenance activity ongoing on the lakebed, the impact of ground disturbance associated with installation of project facilities will be temporary and less than significant on the visual character of the project site.

Visual Impacts During Operation. Once installed, views of the project site will be of 2.03 square miles of gravel with some delineation of the area from the proposed berms. No tall structures or other obstructions to scenic vistas are proposed as part of the project; the project will not alter or block scenic views of the Sierra Nevada and Inyo Mountains. However, the project could alter the aesthetics of 2.03 square miles of currently barren playa. Specifically, the gravel proposed for use will come from different sources which differ in color – the shale pit materials will vary in color but are generally darker brown and the dolomite limestone is generally a much lighter white color. Under existing conditions, the Phase 8 area can be described as grey to white with surrounding areas of brighter white (**Figure 6**). From a distance, the partially vegetated areas adjacent to the Phase 8 area and outside the historic lakebed appear darker in coloration.

Per the terms of the MOA between LADWP and GBUAPCD (1998), gravel used for dust control on Owens Dry Lake shall be comparable in coloration to the lakebed soils. Consistent with this requirement, shale will be blended with dolomite in an effort to have the Gravel Cover DCM area blend in with the surrounding landscape to the maximum extent feasible.

Implementation of DCMs on the lake has altered the views of the lakebed from dry playa with fluctuating sized brine pool to a managed system of bermed areas of water and vegetation and roadways. Due to the distance from the viewer and the size of the Phase 8 area in relation to the overall lakebed, views of the Phase 8 area with gravel installed will not change the dramatic backdrop or natural feel of the overall landscape of Owens Dry Lake.



**View of Phase 8 Project Area
From the West**
Figure 6

Source: LADWP (June 20, 2010)

Section 2 – Environmental Analysis

While the Phase 8 project could somewhat alter the color of the ground cover, the impact on aesthetics will be less than significant with the consideration of appropriate color blending and in the context of the views of the other DCMs on the lake.

- b) **Less than Significant Impact.** Scenic roadways are designated by BLM, Inyo National Forest, Caltrans, and the Federal Highway Administration. State Highway 395 is an officially designated State Scenic Highway from Independence to north of Tinemaha Reservoir (postmiles 76.5 to 96.9) (Caltrans, 2008). State Highway 395 is eligible for designation in the portions north and south of that segment (Caltrans, 2008). The project site is just east of State Highway 395 in the eligible but not designated portion of the roadway. There are no trees, major landform features or rock outcroppings within the Phase 8 area and none would be disturbed by project implementation. As discussed above, implementation of the project could alter the view of the 2.03 square miles of the lakebed from SR 395. Blending of available gravel sources to approximate the existing color of the lakebed in the Phase 8 area will result in a less than significant impact on views from a portion of roadway eligible for designation as a scenic roadway, SR 395.
- d) **Less Than Significant Impact.** The proposed project does not include permanent installation of new sources of lighting. Construction activities will occur primarily in daylight hours; some limited use of lighting may be necessary in the early morning or evening hours (especially in winter). There are no plans for a 24-hour construction schedule. Since the proposed lighting will be of limited duration and confined to the specific area of construction, impacts on light and glare that could affect day or nighttime views of the project area will be less than significant. [See also Section 2.3.4 regarding mitigation to protect biological resources related to the potential use of limited lighting.]

Section 2 – Environmental Analysis

2.3.2 Agricultural and Forest Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **No Impact.** The Farmland Mapping and Monitoring Program (FMMP) does not include Inyo County; therefore the proposed project will have no impact on conversion of FMMP designated Farmland (California Department of Conservation, 2006).
- b) **No Impact.** Existing zoning by Inyo County of the mitigation sites is OS-40 (Open Space, 40-acre lot minimum) with a land use designation of SFL (State and Federal Lands) (Inyo County, 2010). Since Inyo County does not offer a Williamson Act program (California Department of Conservation, 2008), the proposed project will have no impact on agricultural zoning or Williamson Act contracts.
- c) and d) **No Impact.** The project site is not zoned as forested land and the proposed project will not result in conversion of forest land to non-forest use. Public Resources Code Section 12220 (g) defines "Forest land" as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Since no trees exist on the project site, removal of native trees is not proposed. Therefore, the proposed project will have no impact on forest lands.

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- e) **No Impact.** Active ranches are located near the project site – Horseshoe Livestock to the south and Islands and Delta Livestock, Lubkin Adjunct Livestock, and Mount Whitney Ranch north and west of the Phase 8 area. However, since the project does not include new fences, alter water distribution to the ranches or include haul routes across ranch properties, there will be no impact on agricultural operations from construction and operation of the Phase 8 project. Additionally, since the site is generally devoid of vegetation, stray animals from adjacent ranches would not be anticipated to graze on the Phase 8 project area.

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2.3.3 Air Quality

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

The southern Owens Valley is located within the jurisdiction of the GBUAPCD. The valley has been designated by the State and EPA as a non-attainment area for the state and federal 24-hour average PM₁₀ standards. Wind-blown dust from the dry bed of Owens Lake is the primary cause of the PM₁₀ violations. With the exception of PM₁₀, air quality is considered excellent and the area has been designated as attainment or unclassified for all other ambient air quality standards. Large industrial sources of air pollutants are absent from the Owens Valley. The major sources of criteria pollutants, other than wind-blown dust, are woodstoves, fireplaces, vehicle tailpipe emissions, fugitive dust from travel on unpaved roads, prescribed burning, and gravel mining.

- a) **Less Than Significant Impact.** The relevant air quality plan for the project area is the Final 2008 Owens Valley PM₁₀ Planning Area Demonstration of Attainment SIP (GBUAPCD, 2008a). The focus of this planning document is implementation of DCMs at Owens Dry Lake, the major particulate matter sources in the Valley. The SIP demonstrates how the National Ambient Air Quality Standards (NAAQS) will be attained.

The history of the air quality planning process is summarized from the 2008 SIP EIR (GBUAPCD, 2008b). In 1987, the USEPA designated the Owens Valley Planning Area as non-attainment for the NAAQS for PM₁₀. The result of this designation was a plan designed to improve air quality through the reduction of PM₁₀ emissions in all of the communities in the Owens Valley (the 1998 SIP). Under this plan, LADWP began constructing DCMs on the lakebed with a goal of meeting the federal PM₁₀ standards by the end of 2006. A revised SIP in 2003 required LADWP to implement DCMs on 29.8 square miles of the Owens dry lakebed by December 31, 2006. The 2003 SIP also contained provisions requiring GBUAPCD to continue monitoring air pollution emissions from the lakebed and to identify any additional areas beyond the 29.8 square miles that may require PM₁₀ controls in order to

meet the standards. Based on July 2002 through June 2004 air monitoring data, a supplemental control requirement (SCR) determination was made that additional areas of the lakebed would require DCMs in order to meet the PM₁₀ standards. Based on that SCR analysis, the 2008 SIP includes 15.1 square miles (9,664 acres) of additional DCMs on Owens dry lakebed. Of the 15.1 square miles, 1.9 square miles are identified as Study Area, of which some or all may require controls after 2010.

Due to the delay in implementation of the Phase 7 DCMs, LADWP submitted a variance petition to the GBUAPCD Hearing Board on August 21, 2009 requesting a 1-year time extension for completion of 3.5 square miles of the Moat and Row DCM. Per the terms of the Findings and Order Granting Regular Variance from Requirements Set Forth in Governing Board Order 080128-01 (variance GB09-06 dated September 25, 2009), to offset the excess air pollution caused by the delay, LADWP is required to implement the proposed Phase 8 project. Consistent with the variance, the proposed action is implementation of gravel BACM on 2 square miles of area identified by GBUAPCD as emissive; the boundaries of the area were provided to LADWP by GBUACPD in December 2009 (T. Schade pers. comm., 2009).

Per the terms of the variance, LADWP will complete construction and begin operation of the Phase 8 DCMs 6 months earlier than it would have been required to do so under the provisions of Board Order 080128-01³. Since GBUAPCD mandated BACM as part of the variance and identified 2.03 square miles for Phase 8, and since it will accelerate dust control on the project area by 6 months, the proposed project is consistent with the applicable air quality plan for the project area. Impacts on the air quality plan will be less than significant.

- b) and c) **Less Than Significant Impact with Mitigation Incorporated.** Emissions during project construction will result from the operation of the equipment listed in Section 1, including: dozers, dump trucks, flatbed trucks, fuel trucks, backhoes or tractors, water trucks, light duty trucks, and workers personal vehicles. **Table 2** summarizes worst-case, peak-day emissions estimates for construction activity based on the assumption of 40 gravel haul trucks traveling to and from the Phase 8 area from the LADWP Shale Pit (the most distant gravel source) and concurrent dozer, backhoe, and flatbed truck operation for stockpile preparation, berm installation, gravel spreading and geotextile installation.

The GBUAPCD has not established specific quantitative thresholds of significance for air emissions related to construction. However, projects that violate the NAAQS for PM₁₀ are deemed unacceptable (GBUAPCD, 2008a).

Construction activities would result in tailpipe emissions of criteria pollutants. With the exception of PM₁₀, however, these emissions would not result in a cumulative considerable

³ Adopted on February 1, 2008, the GBUAPCD Board Order 080128-01 provides for the enforcement and implementation of 43.0 square miles of BACM level controls on the Owens Lake bed found in the 1998 Owens Valley SIP and subsequent SIP revisions. Board Order 080128-01 specifies the timing, implementation, placement, and management of lake bed controls such as shallow flooding, managed vegetation, gravel blanketing, and “moat and row” controls. Also, Board Order 080128-01 provides for contingency procedures for supplemental controls, maintenance of existing controls, and a “performance monitoring plan.”

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net increase of any criteria pollutant for which the project region in is nonattainment under an applicable federal or state ambient air quality standard. Therefore, with the exception of PM₁₀, air pollutant emissions during construction will be less than significant. However, to reduce tailpipe emissions from construction and maintenance vehicles and equipment to the maximum extent feasible, mitigation measures Air-2 to Air-5 shall be implemented.

In addition to the PM₁₀ emissions for construction equipment and workers' vehicles, additional PM₁₀ emissions will result from: minor land leveling (prior to geotextile installation), widening of Corridor 1, preparation of the stockpile location, tunneling of the potential conveyor system under SR 136, berm creation for stormwater management, vehicle travel on unpaved roads, and from dumping and moving of the gravel onto stockpiles and onto the geotextile. Since these activities will potentially violate GBUAPCD Rule 401 for fugitive dust emissions, generation of PM₁₀ emissions during project construction will be a significant impact. Implementation of mitigation measure Air-1 will prevent visible dust from the leaving the property and therefore reduce air quality impacts to below a level of significance.

Operation of the Phase 8 dust control project would reduce PM₁₀ emissions from Owens Dry Lake, a beneficial impact. However, maintenance-related air pollutant emissions will result from infrequent replenishment of gravel. Since the maintenance operations will be smaller, air pollutant emissions from equipment and vehicles used for gravel replenishment will be less than those for initial installation. However, emission of PM₁₀ during project maintenance may violate Rule 401 for fugitive dust emissions, a significant impact. Implementation of mitigation measure Air-1 in compliance with GBUAPCD Rule 401 will reduce maintenance-related air quality impacts to below a level of significance.

- d) **Less Than Significant Impact.** Sensitive receptors include schools, day-care facilities, nursing homes, and residences. The closest sensitive receptors to the Phase 8 gravel area are residences in Keeler (located approximately 7 miles southeast), a residence at the Boulder Creek RV Park (located approximately 1.8 miles northwest at the intersection of U.S. 395 and Main Line Road), and residences in Dolomite (located approximately 2.2 miles to the east). To the haul routes, the closest receptors area are in Dolomite (approximately 1 mile northeast of the Dolomite Quarry haul route), Swansea (approximately 0.7 miles north of the Dolomite Quarry haul route) and Keeler (0.8 miles to the LADWP Shale pit haul route).

As noted above, construction of the proposed project will include operation of mechanical equipment. However, given the distance of residential sensitive receptors to the proposed project site, the impact from gas and diesel fumes associated with motor vehicles and heavy equipment engines on sensitive receptors will be less than significant. Implementation of the proposed project would greatly decrease the exposure of residents to PM₁₀ emissions from the Owens Dry Lake in the long term, a beneficial impact.

- e) **Less Than Significant Impact.** Project construction and operation will result in minor localized odors associated with fuel use for equipment and vehicles. These odors are common, not normally considered offensive, and will not be experienced by any residences since none are immediately adjacent to the project sites. Odor impacts to potential recreation

visitors at the sites during construction activities will be temporary and less than significant.

Mitigation Measures to Reduce Impacts on Air Quality

Mitigation Measure Air-1 will reduce dust emissions during construction and maintenance activity to less than significant levels. Mitigation measures Air-2 through Air-5 will be implemented to reduce less than significant construction vehicle and equipment tailpipe emissions to the maximum extent practical, feasible, and available.

Air-1. Fugitive Dust Emissions Control and Minimization. In compliance with GBUAPCD Rule 401, LADWP shall take reasonable precautions to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emission originates. Best available control measures shall be implemented during construction and maintenance activities to minimize emission of fugitive dust from earthwork and travel on unpaved roads and other areas. Best available control measures may include, but would not be limited to, the use of chemical soil stabilizers, surface coverings, windbreaks, water trucks, and water sprays twice a day, or comparable measures that prevent visible dust from occurring. At a minimum, active operations shall utilize one or more of the applicable best available control measures to minimize fugitive dust emissions from each fugitive dust source type that is part of the active operation. Monitoring reports will be prepared during construction activity and made available to GBUAPCD and CSLC as requested.

Air-2. Low Emissions Tune-ups Schedule. A schedule of low emissions tune-ups shall be prepared for all equipment operating on site for more than 10 working days. A log shall be maintained and made available to GBUAPCD and CSLC as requested.

Air-3. Low-emission Equipment Utilization. Low-emission equipment/mobile construction equipment shall be used for project construction to the maximum extent practical, feasible, and available.

Air-4. Low-emission Mobile Vehicle Utilization during Construction. Low-emission or alternative-fueled mobile vehicles shall be used during project construction to the maximum extent practical, feasible, and available. In addition, carpooling of construction workers shall be encouraged.

Air-5. Low-emission Mobile Vehicle Utilization during Operation. Hybrid, low-emission (CA LEV II; PZEV, SULEV; or ULEV) or alternative-fueled mobile vehicles, such as electric or fuel cells, shall be used for the proposed project site to the maximum extent practical, feasible, and available. In addition, carpooling of operations and maintenance workers shall be encouraged.

With implementation of the above mitigation measures, project-related impacts on air quality will be less than significant.

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Table 2
Summary of Estimated Worst-Case Peak Day Construction Emissions

Emissions Source (on-road vehicles)	Vehicle Type	No.	Est Max miles per day	Emission Factor (lbs/mi) ¹						Estimated Peak Day Emissions (lbs/day)						
				VOC	CO	NOx	SOx	PM10	PM2.5	VOC	CO	NOx	SOx	PM10	PM2.5	
Light Duty Truck	PV	5	20	0.00085233	0.00826276	0.00084460	0.00001077	0.00008879	0.00005653	0.09	0.83	0.08	0.00	0.01	0.01	
Delivery Truck	DT	2	200	0.00241868	0.01693242	0.01893366	0.00002728	0.00070097	0.00059682	0.97	6.77	7.57	0.01	0.28	0.24	
Gravel Haul Trucks – Heavy Duty	HHDT	40	82	0.00279543	0.01112463	0.03455809	0.00003972	0.00166087	0.00144489	9.17	36.49	113.35	0.13	5.45	4.74	
Gravel Haul Trucks – Low Pressure Vehicles	DT	40	20	0.00241868	0.01693242	0.01893366	0.00002728	0.00070097	0.00059682	1.93	13.55	15.15	0.02	0.56	0.48	
Water Trucks and Fuel Trucks	HHDT	5	50	0.00279543	0.01112463	0.03455809	0.00003972	0.00166087	0.00144489	0.70	2.78	8.64	0.01	0.42	0.36	
Workers Personal Vehicles ⁴	PV	125	90	0.00085233	0.00826276	0.00084460	0.00001077	0.00008879	0.00005653	9.59	92.96	9.50	0.12	1.00	0.64	
Emissions Source (construction equipment)	No.	Est Max hrs of use per day	Emissions Factor (lbs/hr) ²						Estimated Peak Day Emissions (lbs/day)							
			VOC	CO	NOx	SOx	PM10	PM2.5 ³	VOC	CO	NOx	SOx	PM10	PM 2.5		
Backhoe/Bobcat	2	10	0.0938	0.3874	0.6276	0.0008	0.0482	0.0429	1.88	7.75	12.55	0.02	0.96	0.86		
Dozer	18	10	0.2302	0.8604	1.7086	0.0015	0.0998	0.0888	41.44	154.88	307.55	0.26	17.96	15.98		
Total										65.8	316.0	474.4	0.6	26.6	23.3	

Notes: PV: passenger vehicles, HHDT: heavy-heavy-duty trucks, DT: Delivery Trucks

Sources:

1 SCAQMD. 2007a. EMFAC2007 version 2.3 Emission Factors for On-Road Passenger Vehicles & Delivery Trucks. Scenario Year 2011.

2 SCAQMD 2007b. SCAB Fleet Average Emission Factors (Diesel). Scenario year 2011.

3 SCAQMD. 2006. Final – Methodology to Calculate Particulate Matter (PM) 2.5 and PM 2.5 Significance.

4 Average mileage per worker assumes 50 percent of workers are from Lone Pine (5 miles from project site), 20 percent from Ridgecrest (48 miles from project site), 20 percent from Bishop (61 miles from project site), and 10 percent from Los Angeles (200 miles from project site).

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2.3.4 Biological Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion: Prior to implementation of the Dust Control Project, Owens Dry Lake consisted of a large expanse of barren playa, a remnant hypersaline brine pool, and scattered springs and seeps along its shoreline. Implementation of DCMs has resulted in an increase in the use of Owens Dry Lake by many wildlife species as water and vegetation resources are now present on much of the former barren playa. Shallow Flooding has attracted large numbers of birds, primarily gulls, avocets, stilts and plovers (LADWP, 2010b).

The Phase 8 project area is located on the northwest corner of the lake between proposed Moat and Row Cell T37-1 and existing Shallow Flood cells T35-1 and T35-2. The Phase 8 area was surveyed on April 8, 2010 by a LADWP Watershed Resources Specialist. The site is primarily barren alkali playa and devoid of any vegetation with the exception of the northeastern and southeastern boundaries of the project area. The southeastern portion is comprised of very sparse *Atriplex parryi* (Parry's saltbush). The northeastern portion (west of Corridor 1) is characterized as a sparse community of *Atriplex parryi*, *Suaeda moquinii* (seepweed), and *Cleomella obtusifolia* (bluntleaf stinkweed). East of Corridor 1 at the end of the Lower Owens

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River Delta Habitat Area is a similar community made up of *Atriplex parryi*, *Suaeda moquinii*, *Cleomella obtusifolia*, *Distichlis spicata* (saltgrass), and *Tamarix ramosissima* (salt cedar). In April 2010, the estimated vegetative cover on the Phase 8 project site was approximately 1 percent.

The future location of the conveyor (east of Owens Dry Lake) was surveyed July 7, 2010 for sensitive resources. This area was characterized as a dry sodic terrace that was made up of a sparse community of *Suaeda moquinii*, *Atriplex parryi*, and *Atriplex hymenelyta* (desert holly), none of which are sensitive species.

- a) **Less Than Significant Impact with Mitigation Incorporated.** Based on California Natural Diversity Data Base (CNDDDB), listings for the Lone Pine, Dolomite, and Keeler USGS quadrangles, and LADWP knowledge of the areas, the following sensitive plant and animal species may have the potential to occur on or near the project sites (**Tables 3 and 4**). [Table 3 also includes two plants found on the adjacent Bartlett USGS quadrangle (directly south of the Lone Pine quadrangle).]

Table 3
Sensitive Plant Species with the Potential to Occur on or near the Project Site

Quad	Scientific Name	Common Name	Status	CNPS List	Habitat Preference
Lone Pine	<i>Plagiobothrys parishii</i>	Parish's popcornflower	none	List 1B.1	Wet alkaline soils around desert springs, 750-1400m
Lone Pine	<i>Astragalus hornii</i> var. <i>hornii</i>	Horn's milkvetch	none	List 1B.1	Salty flats, lakeshores, 60-150m (850 m in west Mojave Desert)
Lone Pine	<i>Phacelia inyoensis</i>	Inyo phacelia	none	List 1B.2	Alkali meadows, 1400-3200 m
Lone Pine	<i>Sidalcea covillei</i>	Owens Valley checkerbloom	SE	List 1B.1	Alkali meadows, 1100-1300 m
Lone Pine	<i>Oryctes nevadensis</i>	Nevada oryctes	none	List 2.1	Sandy soils, dunes, 1200-1500 m
Lone Pine	<i>Calochortus excavatus</i>	Inyo County star-tulip	none	List 1B.1	Alkali meadows, 1300-2000 m
Bartlett	<i>Lupinus padrecrowleyi</i>	Father Crowley's lupine	CA Rare	List 1B.2	Decomposed granite, 2500-4000m
Bartlett	<i>Trifolium macilentum</i> var. <i>dedeckerae</i>	Dedecker's clover	none	List 1B.3	Pinyon woodland to alpine crest, rock crevices; 2100-3500 m

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Quad	Scientific Name	Common Name	Status	CNPS List	Habitat Preference
Dolomite	<i>Erigeron calvus</i>	bald daisy	none	List 1B.1	Sagebrush/desert scrub, base of Inyo Mountains, +/- 1200 m
Dolomite	<i>Astragalus serenoii</i> <i>var. shockleyi</i>	Shockley's milkvetch	none	List 2.2	Open dry, alkaline gravelly clay soil with sagebrush/pinyon pine, 1500-2250 m

CNPS – California Native Plant Society listing (1A Plants presumed extinct in California; 1B Plants rare, threatened, or endangered in California and elsewhere; 2 Plants rare, threatened, or endangered in California, but more common elsewhere; 3 Plants about which we need more information - a review list; 4 Plants of limited distribution - a watch list); SE – State Endangered; SR – State Rare

Table 4
Sensitive Animal Species with the Potential to Occur on or near the Project Site

Scientific Name	Common Name	Status	USGS Quadrangle
<i>Rana sierrae</i>	Sierra Nevada yellow-legged frog	FC, CSSC	Lone Pine
<i>Batrachoseps campi</i>	Inyo Mountains slender salamander	CSSC	Dolomite
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	FT, CSSC	Lone Pine, Dolomite
<i>Vireo bellii pusillus</i>	least Bell's vireo	FE, SE	Lone Pine
<i>Icteria virens</i>	yellow-breasted chat	CSSC	Lone Pine
<i>Gila bicolor snyderi</i>	Owens tui chub	FE, SE	Lone Pine, Dolomite
<i>Euderma maculatum</i>	spotted bat	CSSC	Lone Pine, Keeler
<i>Antrozous pallidus</i>	pallid bat	CSSC	Lone Pine
<i>Myotis yumanensis</i>	Yuma myotis	none	Dolomite
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	CSSC	Dolomite
<i>Microtus californicus vallicola</i>	Owens Valley vole	CSSC	Lone Pine
<i>Ovis canadensis sierrae</i>	Sierra Nevada bighorn sheep	FE, SE, FP	Lone Pine
Alkali Seep	Alkali Seep	none	Lone Pine
<i>Pyrgulopsis wongi</i>	Wong's springsnail	none	Lone Pine
<i>Myotis ciliolabrum</i>	Western small-footed myotis	None	Keeler
<i>Xerospermophilus mohavensis</i>	Mojave ground squirrel	ST	Keeler

Source: CDFG, 2010.

Species Status: FE – Federal Endangered, FC – Federal Candidate, FT – Federal Threatened, SE – State Endangered, ST – State Threatened, CSSC – California Species of Special Concern, FP – CDFG Fully Protected

Sensitive Plant Species. Based on the surveys conducted in April and July 2010, no sensitive plant species were observed, and the project site does not contain suitable habitat for any of the sensitive plant species known for the general project area. Therefore, since

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none are known for the project site, construction and operation of the Phase 8 project would have no impact on sensitive plant species.

Sensitive Amphibian Species. The Sierra Nevada yellow legged frog and Inyo Mountains slender salamander have not been documented on the valley floor and are not known to occur on the project site. Since the project site lacks water, it would not be anticipated to support frog or salamander populations. Therefore, construction and operation of the Phase 8 project would have no impact on sensitive amphibian species.

Sensitive Bird Species. The Phase 8 site is barren alkali playa devoid of habitat potentially suitable for foraging, nesting, and wintering of sensitive avian species, with the exception of Western Snowy Plover. However, shorebirds are known for the Shallow Flood areas adjacent to the project site at T-35-1, T-35-2, T-36-1, and T-36-2. A detailed listing of bird species observed on Owens Dry Lake is included in the Owens Lake Habitat Management Plan (LADWP, 2010b).

A breeding population of Western Snowy Plover occurs on Owens Dry Lake. Per the terms of previous mitigation measures, LADWP is required to maintain a baseline of at least 272 Snowy Plovers as determined during dedicated annual surveys (GBUAPCD, 2003) and a minimum of 523 acres of Shallow Flooding habitat for Snowy Plovers in consultation with CDFG (GBUAPCD, 2008a). This habitat is described as a mix of exposed sandy or gravelly substrate suitable for nesting in close proximity to standing water equal to or less than 12 inches in depth; the 523-acre area has been designated along the east side of the lake. In 2009, 631 adult Snowy Plovers were counted during the lake-wide survey (LADWP, 2009b).

Snowy Plover nests have been documented adjacent to the T-36 Shallow Flood areas and it can be assumed that individuals may attempt to nest on or in close proximity to the Phase 8 area. A previous habitat assessment for the 2009 Moat and Row SEIR evaluated the area just west of the Phase 8 proposed project area to be moderate habitat for Snowy Plovers. However, no Snowy Plover nests have been documented in the Phase 8 project area to date nor has this area supported high plover use based on previous lake-wide plover counts.

If present, Phase 8 construction activity could subject Snowy Plovers to noise, vehicular traffic and foot traffic. Continued or repeated disturbance of nesting birds can result in nest failure. Loss of nests, disturbance to breeding and foraging activities, and mortality of individuals due to ground disturbing activities could occur. During project construction, plovers could be killed or injured by vehicle traffic or active nests could be crushed beneath heavy construction equipment. Therefore, disruption of nesting Snowy Plovers during construction of Phase 8 would be a potentially significant impact.

Once installed, there is some potential for future use of the Phase 8 gravel area by Snowy Plover. Multiple Snowy Plovers have been found using the areas along the existing gravel Corridor 1 and have been known to nest on gravel roads elsewhere on Owens Dry Lake. Since the Phase 8 project calls for applying gravel to the low use project area, impacts to Snowy Plover habitat from operation of the Phase 8 project are less than significant since nesting can still occur. However, impacts during maintenance of the Phase 8 project

(installation of replacement gravel) would be similar to impacts from initial project construction. Therefore, disruption of nesting Snowy Plovers during maintenance activities in the Phase 8 area would be a potentially significant impact.

Implementation of mitigation measures Bio-1 through Bio-4 during project construction, and subsequently during project maintenance activities, will reduce impacts to biological resources to a less than significant level.

Sensitive Fishes. The project site does not contain any water bodies that provide suitable habitat for fishes, nor would the project alter flow patterns to any waterways. Construction and operation of the Phase 8 project would have no impact on sensitive fishes.

Sensitive Bat Species. The sensitive bat species known for the general project area may forage in the general area over the Shallow Flood ponds. However, neither standing water nor potential roosting habitat (rock crevices or hollow trees) are present on the Phase 8 site or where the conveyor will be located. Bat foraging in adjacent Shallow Flood areas would not be expected to be impacted during construction of the Phase 8 project since construction activity will occur primarily in the daytime. Therefore, construction and operation of the Phase 8 project will have a less than significant impact on sensitive bat species.

Other Sensitive Mammals. Owens Valley vole, a subspecies of the California vole, is known from wetlands, grasslands, and other grass-dominated sites. Since the project site is primarily barren and devoid of wetlands and grasslands, it does not provide suitable habitat for voles. Sierra Nevada bighorn sheep inhabit alpine meadows, grassy mountain slopes and foothill country near rocky cliffs and bluffs. They are not expected to occur on or near the project site since they are rarely observed on the valley floor. Construction and operation of the Phase 8 project would have no impact on sensitive mammal species.

According to the CNDDDB, the Mojave ground squirrel has the potential to occur on the Keeler quadrangle, which is where the conveyor will be located to carry material from the LADWP shale pit. However, the Mojave ground squirrel has not been documented east of Owens Dry Lake, nor were there any signs of its presence based on the biological survey conducted in July 2010.

Summary of Impacts to Sensitive Animal Species. The Phase 8 project site is barren playa devoid of habitat values for sensitive species other than Western Snowy Plover. With implementation of mitigation measures to reduce impacts on Snowy Plovers, construction and operation of the Phase 8 project will have a less than significant impact on sensitive animal species.

- b) and c) **No Impact.** The Phase 8 area does not contain wetlands or riparian habitat that could potentially fall under federal jurisdiction (Clean Water Act Section 404 administered by the U.S. Army Corps of Engineers) such as areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support wetland vegetation. The CNDDDB lists Alkali Seep as a sensitive habitat type known for the Lone Pine quadrangle. The project site does not contain any seeps or springs. The closest natural wetland areas are

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the Northwest/Elk Seeps, located southwest of the Phase 8 area (adjacent to T37-1) and the Owens River Delta, located east of the project area. During installation of gravel on the project site, construction vehicles will travel on existing roadways; adjacent wetland areas will not be impacted. Therefore, since none are located on the project site, construction and operation of the Phase 8 project will have no impact on riparian habitat, wetlands, or other sensitive natural communities.

- d) **Less Than Significant Impact.** There are no known migration corridors for mammals within the Phase 8 project area. Tule elk calving is known east of the project site in the Owens River Delta. During calving, cows and calves would not be expected to stray far from vegetative cover and forage. Tule elk have also been observed in the Northwest/Elk Seeps area. However, since the Phase 8 project site is mostly devoid of vegetation, tule elk would not be expected to move across the project site on any regular basis. Similarly, mule deer are associated with vegetation areas and would not be likely to cross the barren Phase 8 project area. There are no known or documented migration corridors for small terrestrial mammals or medium-sized mammals on Owens Dry Lake (GBUAPCD, 2008b).

Owens Dry Lake is an important site along the Pacific Flyway for migratory waterbirds. However, the Phase 8 area is barren alkali playa mostly devoid of vegetation. Aside from potential impacts to Western Snowy Plover discussed above, there would be no impacts to nesting or brooding of other avian species since other species are dependent on water and vegetation for nursery sites.

Overall, the impact from construction and operation of the Phase 8 project on wildlife migration corridors and nursery sites will be less than significant.

- e) **Less Than Significant Impact.** No tree ordinances apply to the project area and no trees are present on the project site. The Inyo County General Plan Goals and Policies document (2001) includes two goals for biological resources issues: Maintain and enhance biological diversity and healthy ecosystems throughout the County, and provide a balanced approach to resource protection and recreation use of the natural environment (Goals BIO-1 and BIO-2). Since the project site will remain as open space and may still have some habitat value for nesting for Snowy Plovers, the project will not conflict with these goals. The impact on local policies or ordinances protecting biological resources is less than significant.
- f) **Less Than Significant Impact.** The project site is not within a Significant Natural Area (SNA) as determined by CDFG. LADWP is currently preparing a Habitat Conservation Plan (HCP) for LADWP-owned lands in Inyo and Mono Counties; this plan is not yet finalized but would not cover the Phase 8 portion of Owens Dry Lake since it is property of the CSLC. However, in compliance with mitigation measure Biology-14 of the 2008 SIP FSEIR (GBUAPCD, 2008b), LADWP prepared the Owens Lake Habitat Management Plan (OLHMP) for the Owens Lake Dust Mitigation Project (LADWP, 2010b). The OLHMP will serve as a guide for compatibility between construction, maintenance, and operational needs of the Dust Mitigation Project under the 2008 SIP FSEIR, and the needs of resident and migratory wildlife resources utilizing the Owens Lake Dust Control Area. The overall goal of the OLHMP is to avoid direct and cumulative impacts to native wildlife communities that

may result from the Dust Control Program. A large part of the Phase 8 area was considered as part of the Study Boundary for the OLHMP. Implementation of Phase 8 would be consistent with the resource management actions described in the OLHMP; relevant measures are consistent with the mitigation measures listed below. Therefore, since the project would not conflict with the goals or management actions contained in the OLHMP, the impact of the Phase 8 project on habitat conservation planning is less than significant.

Mitigation Measures for Impacts to Biological Resources

Mitigation Measures Biology-1 through Biology-4 were described in the 2008 SIP SEIR (GBUAPCD, 2008a) for the 15.1 square miles of DCMs proposed under that project. These measures are also relevant to the Phase 8 project. To reduce impacts to biological resources to a less than significant level, the following mitigation measures shall be implemented.

Bio-1. Lakebed Worker Education Program. To minimize potential direct impacts to western snowy plover from construction activities, LADWP shall continue the lakebed worker education program consistent with the previous approach and per CDFG recommendations. The program shall be based on western snowy plover identification, basic biology and natural history, alarm behavior of the snowy plover, and applicable mitigation procedures required of LADWP and construction personnel. The program shall be conducted by a biologist familiar with the biology of the western snowy plover at Owens Dry Lake and familiar with special status plant and wildlife species of the Owens Lake basin. The education program shall explain the need for the speed limit in the snowy plover buffer areas and the identification and meaning of buffer markers. All construction, operation, and maintenance personnel working within the project area shall complete the program prior to their working on the lakebed. A list of personnel who have completed the education program shall be maintained and made available to GBUAPCD upon request.

Bio-2. Preconstruction Surveys for Western Snowy Plover. To minimize potential direct impacts to western snowy plover within the project area due to construction activities, LADWP shall conduct a preconstruction survey for western snowy plover in all potential snowy plover habitat prior to any construction activity that is performed during the snowy plover breeding season (March 15 to August 15). Preconstruction surveys shall be performed no more than 7 days prior to the start of ground-disturbing activities. A 200-foot buffer shall be placed around all active snowy plover nests that are discovered within the construction area. This buffer shall protect the plover nest from both destruction and construction noise. Green-colored stakes of less than 60 inches in height with yellow flagging shall be used to mark buffer edges, with stakes spaced at eight approximately equidistant locations. The location of the nest (global positioning system coordinates) and current status of the nest shall be reported within 24 hours of discovery to GBUAPCD. Maps of snowy plover nest locations shall be posted at the construction office and made available to all site personnel and GBUAPCD staff. The activity of the nest shall be monitored by a biological monitor, as per existing guidelines for the North Sand Sheet and Southern Zones dust control projects and any revisions to the monitoring protocol that have been approved by CDFG. Active snowy plover nests shall be monitored at least weekly. The nest buffer shall remain in place until such time as the biological monitor determines that the nest is no longer active and that

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fledglings are no longer in danger from proposed construction activities in the area. Buffers shall be more densely marked where they intersect project-maintained roads. Vehicles shall be allowed to pass through nest buffers on maintained roads at speeds less than 15 miles per hour, but shall not be allowed to stop or park within active nest buffers. Permitted activity within the nest buffer shall be limited to foot crews working with hand tools and shall be limited to 15-minute intervals, at least one hour apart, within a nest buffer at any one time.

Bio-3. Snowy Plover Nest Speed Limit. To minimize potential direct and cumulative impacts to western snowy plover and other sensitive biological resources from vehicles construction activities, LADWP shall implement a speed limit of 30 miles per hour within all active construction areas on Owens Dry Lake during construction of dust control measures. Speed limits shall be 15 miles per hour within active snowy plover nest buffers. Designated speed limits for other construction areas outside of active nest buffers shall be maintained at 30 miles per hour where it is determined to be safe according to vehicle capabilities, weather conditions, and road conditions. Site personnel and GBUAPCD staff shall be informed daily of locations where active nest buffers overlap with roads in the construction area. Signs shall be posted that clearly state required speed limits. Speed limit signs shall be posted at all entry points to the lake. The number of speed limit signs shall be kept at a minimum near active snowy plover nest areas to reduce potential perches for raptors and other snowy plover predators and shall be outfitted with Nixalite or the functional equivalent if greater than 72 inches (increased from the original 60 inches) in height at entry points to the lake and 60 inches in height by active snowy plover nest areas.

Bio-4. Lighting Best Management Practices. To minimize indirect impacts to nesting bird species associated with project lighting during construction activities, LADWP shall institute all best management practices to minimize lighting impacts on nocturnal wildlife consistent with previous requirements and CDFG recommendations. Best management practices include those listed below, and are included in the Project Description of the GBUAPCD 2008 State Implementation Plan Subsequent Environmental Impact Report. Previous construction has occurred during nighttime hours to complete construction schedules and to prevent personnel from working during times of high temperatures. If night work is deemed necessary, then construction crews shall make every effort to shield lighting on equipment downward and away from natural vegetation communities or playa areas, and especially away from known nesting areas for snowy plovers during the nesting season (March to August). All lighting, in particular any permanent lighting, on newly built facilities shall be minimized to the greatest extent possible, while still being in compliance with all applicable safety requirements. Required lighting shall be shielded so that light is directed downward and away from vegetation or playa areas.

With implementation of the above mitigation measures, project-related impacts on biological resources will be less than significant.

2.3.5 Cultural Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion: A field survey of the proposed project sites for observable cultural resources was conducted by archaeologists with cross-training in paleontology from Garcia and Associates from June 16 – 18, 2010, and June 22 – 25, 2010. The Cultural Resources Survey Reports completed for the project are on file with LADWP. To protect resources, site records are not appended to the Initial Study.

a) and b) **Less than Significant Impact with Mitigation Incorporated.** A records search completed at the Eastern Information Center (EIC) at the University of California Riverside for the entire Owens Dry Lake, conducted in 2009 for the Owens Lake Dust Mitigation Program was used for this project (EIC, 2009). Additionally, a supplemental records search was performed on June 29, 2010 at the EIC for a 0.5 mile radius (an area sufficient to characterize the types of previously identified sites in the area) of the conveyor belt area located on lands administered by the BLM, which were not included in the earlier records search. The following sources were consulted:

- EIC base maps: USGS series topographic quadrangles.
- Pertinent survey reports and archaeological site records were examined to identify recorded archaeological sites and historic-period built-environment resources (such as buildings, structures, and objects) within or immediately adjacent to the project areas.
- The California Department of Parks and Recreation's California Inventory of Historic Resources (1976) and the Office of Historic Preservation's Historic Properties Directory (2007), which combines cultural resources listed on the California Historical Landmarks, California Points of Historic Interest, and those listed in or determined eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR).

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Based on the records searches, 12 previous studies were conducted in the vicinity of the project sites: Record searches performed by the EIC in 2009 and June 29, 2010 determined that 60 prehistoric and/or historic resources were recorded within a 0.5 mile radius of the project areas. These resources comprise 20 prehistoric sites, five historic sites, 34 prehistoric isolates, and one historic isolate.

Other research included a review of U.S. General Land Office (GLO) plat maps of the project areas from the BLM. The GLO plat maps revealed no historic resources within the project areas. However, a review of historic USGS topographic maps reveals the presence of former structures on the Ballarat, California USGS topographic map (scale 1:250000) from 1913 and reprinted in 1927, and 1947. The former structures include two former buildings and a railroad spur in the vicinity of the “*Soda Works Plant*.”

A search of the Sacred Lands File housed at the Native American Heritage Commission (NAHC) resulted in the identification of no Native American cultural resources within a 0.5 mile radius of the project areas.

The project areas were surveyed via pedestrian transects at 20 meter intervals, and a Trimble Geo Explorer 2008 GPS unit was used to map the locations of cultural resources. Visibility was good (95 percent or better) in most areas. No cultural materials were collected or removed from any of the proposed project areas.

In total, eight prehistoric archaeological sites and eight prehistoric isolated artifacts were recorded within the project areas during the pedestrian survey. In addition, five historic archaeological sites, including two linear features were recorded. These resources are described below by area.

Phase 8 Area A: Four new prehistoric sites were recorded, plus two additional sites that may be extensions of previously recorded sites CA-INY-7614 and CA-INY-7415. Isolates include one isolated core and six isolated metates. Historic resources include an updated site record for 12 telegraph/telephone poles. A newly recorded wooden railroad segment and associated historic debris scatter was also recorded.

Phase 8 Area B: One newly discovered prehistoric site and an isolated prehistoric artifact were identified in this area.

Stockpile Area: One newly discovered prehistoric site was identified in this area.

Construction Office Area: No prehistoric or historic resources were observed in this area.

Conveyor Belt Alignment: Three newly identified historic archaeological sites were recorded in this area.

Of the resources noted above, those characterized as historic era isolates or prehistoric isolates do not meet the definition of unique archaeological resources or historical resources under CEQA, and do not require avoidance or mitigation. One site (The Natural Soda

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Products Company Historic District), has been determined to be a NRHP-eligible historic property. However, none of the remaining sites recorded in the project areas have been formally evaluated to determine their significance under CEQA; therefore disturbance to the sites is a potentially significant impact. Therefore, mitigation measures CUL-1, CUL-2, and CUL-3 shall be implemented to protect cultural resources from disturbance during installation of the Phase 8 DCMs:

CUL-1. Recorded archaeological sites on the project sites will be protected from incidental damage during project construction by flagging the locations prior to the start of construction activity. Extended Phase I testing will be accomplished to delineate site boundaries. The sites, and a radius of 20 feet around the sites shall not be subject to minor land leveling, geotextile installation, gravel installation, construction vehicle traffic, or other disturbances. Specific demarcation of the area to be avoided will be determined in coordination with a qualified archaeologist.

Alternatively, if avoidance of resources is impractical, an archaeological testing and evaluation program to characterize and evaluate sites for CRHR-significance will be conducted. If the resources are found to be unique under CEQA, and avoidance is not feasible, then the archaeologist will conduct data recovery excavations, photodocument the sites (or other documentation including oral histories), or define a compensatory mitigation program (which comprises a budget be established for a specific purpose, such as a NRHP nomination). Any Phase II testing or Phase III data recovery programs would be subject to the approval and issuance of a permit from the CSLC. In addition, coordination will be conducted for cultural resources under the jurisdiction of the BLM to ensure the work will comply with Section 106 of the NHPA.

Based on the NAHC contact list for the project, Native American representatives shall be notified of the archaeologist site visit schedule, and be invited to be present on a volunteer basis.

CUL-2. During earthwork necessary for berm creation at the Phase 8 area and for installation of the gravel conveyor system across SR 136, a qualified archaeological monitor shall be present. Based on the NAHC contact list for the project, Native American representatives shall be notified of the archaeological monitor's schedule, and be invited to be present on a volunteer basis.

CUL-3. If previously unrecorded cultural resources are encountered during the project, all work shall cease within 100 feet of the discovery until the find can be evaluated by a qualified archaeologist. Work will not resume until the qualified archaeologist provides approval.

- c) **Less than Significant Impact with Mitigation Incorporated.** The Owens Dry Lake area is mapped as Quaternary lake and sand deposits, edged by Quaternary alluvium (Mathews and Burnett, 1965, Streitz and Stinson, 1974). The older Pleistocene and late Holocene portion of each geological unit is considered to have moderate sensitivity for paleontological resources. Unique paleontological resources were discovered in older Pleistocene and late Holocene geological units located in the eastern and southern Owens Dry Lake playa (GBUAPCD, 2008b). Survey of the 2003 SIP project area recovered several Pleistocene vertebrate fossils,

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including duck, rodent, and pocket gopher (Gust, 2003). In addition, locally extinct invertebrates were recovered. These fossil materials were located in a limited area, on the east side of the lake at localities that appear to have been subject to deflation (erosion by wind) to the east, south of, and within 1 mile of Swansea. These resources were found within sands and gravels (GBUAPCD, 2008b).

A fossil locality search was conducted on July 12, 2010, using the Berkeley Natural History Museum (BNHM) online database, which includes data from the University of California, Museum of Paleontology (UCMP, 2010). The database search identified 733 fossil localities within Inyo County. They include 19 specimens from the Precambrian, 281 from the Cambrian, 146 from the Ordovician, 35 from the Silurian, 106 from the Carboniferous, 80 from the Permian, 35 from the Tertiary, 7 from the Quaternary, 14 of unknown age and 10 disputed fossils. The 2008 SIP SEIR (GBUAPCD, 2008b) summarized records searches conducted with the San Bernardino County Museum, the Natural History Museum of Los Angeles County, and the Eastern California Museum in Independence. Surveys in 2003 identified seven fossil localities on the Owens Lake playa between Swansea and Keeler along SR 136.

The results of monitoring done in 2008 – 2010 for the Owens Lake Dust Mitigation and Monitoring Project Phase 7 identified 44 fossil localities on Owens Dry Lake, including the fossil remains from birds and aquatic and terrestrial organisms. Vertebrate fossils from the Phase 7 project site include those of bony fish (38 localities), birds (2 localities), and mammals (2 localities), whereas collected invertebrate organisms include several freshwater clams (two localities). All fossils observed throughout the project site were found south of Keeler, with the majority recovered in proximity of the former shoreline prior to historic water diversions (Oberle, 2010).

A preliminary paleontological field survey was conducted by archaeologists cross-trained in paleontology on June 16 – 18 and June 22 – 25, 2010. During the survey, no paleontological materials were observed.

The stockpile location, Corridor 1 expansion area, construction office, and much of the Phase 8 Areas A and B are within 1 mile of the historic shoreline, an area mapped as a paleontological monitoring area in the 2008 SIP SEIR. Sediments located near the surface in this area are recent and are not anticipated to be paleontologically sensitive. Disturbance to soils in these project areas will mostly be limited to the top few inches to feet. However, construction of the berms around the Phase 8 areas (for stormwater control at Area B and as a wind break at Area A) will include excavations of soils in areas that have the potential for a high paleontological sensitivity. Furthermore, construction of the culvert under SR 136 for the gravel conveyor system will disturb soils mapped as alluvium and older gravel; soils that are potentially paleontologically sensitive.

Therefore, mitigation measure CUL-4 shall be implemented to protect paleontological resources from disturbance during installation of the Phase 8 DCMs:

CUL-4. During earthwork necessary for berm creation at the Phase 8 area and for installation of the gravel conveyor system across SR 136, a paleontological monitor shall be present.

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The monitor may be a qualified paleontological monitor or a cross-trained archaeologist, biologist, or geologist working under the supervision of a qualified principal paleontologist. If paleontological materials are discovered that are significant or potentially significant, then the following would apply: data recovery and analysis, preparation of a data recovery report or other reports, and accession of recovered fossil material at an accredited paleontological repository (e.g., the University of California's Museum of Paleontology).

- d) **Less than Significant Impact with Mitigation Incorporated.** Based on a review of the available historic maps available for the area, no recorded cemeteries are located within the proposed project area (1908, 1913, and 1931). Human remains were not found in the course of the 2010 pedestrian surveys at the project sites. However, in the unexpected event that human remains are discovered, the Inyo County Coroner would be contacted, the area of the find would be protected, and provisions of State CEQA Guidelines Section 15064.5 would be followed.

With implementation of the mitigation measure CUL-5, project-related impacts on human remains potentially present in the project area will be less than significant.

CUL-5. In the unexpected event that human remains are discovered, the Inyo County Coroner shall be contacted, the area of the find shall be protected, and provisions of State CEQA Guidelines Section 15064.5 shall be followed.

With implementation of the above mitigation measures, project-related impacts on cultural resources will be less than significant.

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2.3.6 Geology and Soils

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994) creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems, where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

The project area is on Owens dry lakebed, just south of Lone Pine in the Owens Valley. The Owens Valley of eastern California is a deep north-south trending basin, lying between the Sierra Nevada to the west and the White-Inyo Mountains to the east. The Owens Valley was formed as a fault block basin with the valley floor dropped down relative to the mountain blocks on either side.

The Owens Valley is the westernmost basin in a geologic province known as the Basin and Range, a region of fault-bounded, closed basins separated by parallel mountain ranges stretching from central Utah to the Sierra Nevada and encompassing all of the state of Nevada. Geological formations in the project areas are of Cenozoic age, chiefly Quaternary.

The soils in Owens Valley contain mostly Quaternary alluvial fan, basin-fill, and lacustrine deposits (Miles and Goudy, 1997). On alluvial fans, the soils are mostly Xeric and Typic

Torrifluvents, Xeric and Typic Torriorthents, and Xeric and Typic Haplargids (Miles and Goudy, 1997). All soils on alluvial fans are well drained (Miles and Goudy, 1997).

a)-i) and a)-ii) **Less Than Significant Impact.** The west side of the Basin is bounded by a north-south trending fault zone along the east side of the Sierra Nevada known as the Sierra Nevada Frontal Fault (Stone et. al., 2000). The east margin of the Basin is delineated by the Inyo Mountains Fault, which is a belt of west-side-down normal faults along the Inyo Mountains (Hollett et. al., 1991; Neponset, 1999). Roughly in the middle between the Inyo Mountains Fault and Owens Valley Fault is the Owens River Fault (Neponset and Aquila, 1997). To the south, a number of unnamed fault segments were mapped in front of the Coso Range (Stinson, 1977; Hollett et. al., 1991).

The Phase 8 area is located on the Lone Pine USGS quadrangle which includes a designated Alquist-Priolo Special Studies Zone. Surface rupture on local faults is also possible outside of the currently mapped active traces of these range-front faults. However, since habitable structures will not be built as part of the proposed project, people will not be exposed to adverse effects involving seismic ground shaking. Damage to project facilities such as the gravel layer or underlying geotextile could be easily repaired, and impacts will therefore be less than significant.

a)-iii) **Less Than Significant Impact.** The project does not expose people or structures to potential substantial adverse effects involving strong seismic-related ground failure. Ground failure by liquefaction requires saturated soils, which would rarely occur on the Phase 8 project area. Since habitable structures will not be built as part of the proposed project, people will not be exposed to adverse effects involving seismic-related ground failure. Damage to project facilities such as the gravel layer or underlying geotextile could be easily repaired and impacts will therefore be less than significant.

a)-iv) **Less Than Significant Impact.** The project site is located well away from the mountain front, which has slopes steep enough to initiate a landslide during an earthquake. Additionally, since habitable structures will not be built as part of the proposed project, people will not be exposed to adverse effects involving landslides. Damage to project facilities such as the gravel layer or underlying geotextile could be easily repaired and impacts will therefore be less than significant.

b) **Less Than Significant Impact.** Soil disturbance related to the proposed project would result from site preparation of the 2.03 square miles (selective land leveling to prepare the surface for installation of the geotextile membrane), preparation of the stockpile area, expansion of the northerly 0.3 miles of Corridor 1 from 12 feet to 30 feet in width, earthwork for berm creation, and potentially earthwork necessary to tunnel the conveyor system under SR 136. The dust control, berms, and stockpile areas will be covered after disturbance. Similarly, the road expansion will be armored. If the gravel conveyor system is installed, the area necessary to install the culvert under SR 136 would be small. Since only small areas of soil disturbance will be exposed at any one time, impacts related to erosion and loss of topsoil will be less than significant.

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- c) **Less Than Significant Impact.** Only in extremely wet years would the soils of the Phase 8 project area be saturated and potentially subject to liquefaction. However, since no habitable structures will be built as part of the proposed project, the impact will be less than significant.
- d) **No Impact.** Habitable structures will not be built as part of the proposed project. Therefore, there will be no project-related impacts from expansive soils.
- e) **No Impact.** Sanitation facilities are not present or proposed for the project site. Therefore, there will be no impact on soils related to wastewater disposal.

2.3.7 Greenhouse Gas Emissions

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion: LADWP is a member of the California Climate Action Registry. Through the California Climate Action Registry, LADWP has published its 2007 Annual Emissions Report, which specified GHG emissions from its power generation resource mix (both owned and purchased power) at 16,227,510 metric tons in carbon dioxide equivalents. The Annual Emissions Report also documents many of the various methods LADWP has instituted for reducing GHG emissions, such as providing rebates to encourage use of energy efficient equipment, retrofitting City-owned facilities for increased energy efficiency, promoting the installation of solar and renewable power, and reducing GHG from vehicles by pursuing electric fleet vehicles.

- a) **Less Than Significant Impact.** Greenhouse gases include, but are not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride. Project-related emissions of greenhouse gases will be limited to air pollutants generated from construction vehicles during the temporary construction activities. Operations-related air pollutant emissions would only result from infrequent maintenance activity (creating vehicle emissions) to restore gravel as necessary. Otherwise, operation of the project has no air pollutant emissions; the project reduces the emissions of dust from the Owens dry lakebed. GBUAPCD has not identified a significance threshold for GHG emissions. As described in Section 2.3.3 Air Quality, construction of the project will result in less than significant combustion emissions from vehicles and equipment.

Therefore, the impact on emissions of greenhouse gases, and thus climate change, will be less than significant. However, mitigation measures identified in Section 2.3.3 will be implemented to reduce less than significant construction vehicle and equipment tailpipe emissions to the maximum extent practical, feasible, and available.

- b) **No Impact.** The following policies and regulations are relevant to climate change in California:

- **Global Change Research Act of 1990** - In 1990, Congress passed and the President signed Public Law 101-606, *the Global Change Research Act of 1990*. The purpose

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of the legislation was . . . *to require the establishment of a United States Global Change Research Program aimed at understanding and responding to global change, including the cumulative effects of human activities and natural processes on the environment, to promote discussions towards international protocols in global change research, and for other purposes.*

To that end, Global Change Research Information Office (GCRIO) was established in 1991 to serve as a clearinghouse of information and to provide interagency Global Change Data and Information System (GCDIS) to high level users. In 2000, the National Assessment Syntheses Team (NAST) formed under the United States Global Change Research Program (USGCRP) completed a report, entitled *National Assessment of the Potential Consequences of Climate Variability and Change*, to assess the potential impacts on a national and regional level. The U.S. Climate Change Science Program (USCCSP) was launched in February 2002 as a collaborative interagency program, under a new cabinet-level organization designed to improve the government wide management of climate science and climate-related technology development. The CCSP incorporates and integrates the USGCRP with the Administration's U.S. Climate Change Research Initiative (CCRI).

The CCRI builds on the USGCRP, with a focus on accelerating progress over a 5-year period on the most important issues and uncertainties in climate science, enhancing climate observation systems, and improving the integration of scientific knowledge into policy and management decisions and evaluation of management strategies and choices.

- **State of California Executive Order S-3-05** - The Governor of California signed Executive Order S-3-05 on June 1, 2005. The Order recognizes California's vulnerability to climate change, noting that increasing temperatures could potentially reduce snowpack in the Sierra Nevada, a source of water supply in the State. Additionally, according to this Order, climate change could influence human health, coastal habitats, microclimates, and agricultural yield. To address these potential impacts, the Order mandates greenhouse gas emission reduction targets. More specifically, by 2010, greenhouse gas emissions are expected to be reduced to 2000 levels; by 2020, emissions are expected to reach 1990 levels; and by 2050, emissions are expected to be 80 percent below 1990 levels.

The Secretary of the California Environmental Protection Agency (CEPA) will oversee the reduction program targets and coordinate efforts to meet these provisions with numerous State agencies, such as the Resource Agency, which includes the DWR. The Secretary of CEPA will also provide biannual reports to the Governor and the State Legislature regarding: (1) progress toward meeting the greenhouse gas emissions targets; (2) the ongoing impacts of global warming in the State, including impacts to water supply and the environment; and (3) potential mitigation and adaptation plans to combat these impacts. In order to achieve the climate change emission targets, in June 2005, the Secretary of CEPA formed the Climate Action Team (CAT). The CAT includes representatives from Air Resources Board; Business, Transportation, and Housing Agency; Department of Food and Agriculture;

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California Energy Commission (CEC); California Integrated Waste Management Board, Resources Agency (including DWR), and Public Utilities Commission. The CAT submitted a report in 2006 outlining the preliminary strategy to reduce GHG emission.

- **State of California Assembly Bill 32** – California Global Warming Solutions Act - Assembly Bill (AB) 32, *California Global Warming Solutions Act of 2006*, was signed into law on September 27, 2006. With the Governor’s signing of AB 32, the Health and Safety Code (Section 38501, Subdivision (a)) now states the following: *“Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems.”*

AB 32 requires the California Air Resources Board (CARB), in coordination with State agencies as well as members of the private and academic communities, to adopt regulations to require the reporting and verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program. Similar to Executive Order S-3-05, under the provisions of the bill, by 2020, statewide greenhouse gas emissions will be limited to the equivalent emission levels in 1990. To achieve the 2020 reduction goal, by January 2011, CARB shall adopt emission limits and reduction measures, which may include a system of market-based declining annual aggregate emission limits for sources or categories of sources that emit greenhouse gases. It is anticipated that limits and emission standards adopted by the CARB will become operative beginning January 2012. In addition, the CAT established by the Governor to coordinate the efforts set forth under Executive Order S-3-05 is expected to continue its role coordinating overall climate policy. On December 12, 2008, CARB adopted its Climate Change Scoping Plan pursuant to AB 32 (CARB, 2008).

- **State of California Senate Bill 375** - On September 30, 2008, Governor Arnold Schwarzenegger signed Senate Bill (SB) 375, which seeks to reduce GHG emissions by discouraging sprawl development and dependence on car travel. SB 375 helps implement the AB 32 GHG reduction goals by integrating land use, regional transportation and housing planning.

As a dust control project with less than significant air pollutant emissions during operations, the proposed project is consistent with greenhouse gas policies and regulations. Therefore, there is no impact on these policies and regulations.

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2.3.8 Hazards and Hazardous Materials

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion: Hazardous materials are not currently used or stored on the project site.

a) and b) **Less Than Significant Impact.** Construction of the proposed project will require the routine transport, use, and storage of limited quantities of gasoline and diesel fuel, and potentially degreasers and solvents for construction vehicle maintenance. The existing LADWP Sulfate Facility is located off Sulfate Road west of SR 136, on the east side of the lake. This facility includes a vehicle wash station, refueling station, and fuel tanks as well as areas for vehicle maintenance. Additionally, as part of the project, a temporary aboveground fuel tank will be installed at the construction office just northeast of the site to serve the fuel trucks. Other chemical use is not anticipated.

LADWP and will employ standard operating procedures for the routine transport, use, storage, handling, and disposal of hazardous materials related to the operation of the DCMs.

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LADWP also prepares an annual update on the transport, use, storage, handling, and disposal of hazardous materials. Therefore, with adherence to the standard operations procedures for hazardous materials use, impacts related to release or accidental exposure to humans or the environment will be less than significant.

Water use for the project will be limited to dust control during construction and no standing water will be created. Therefore, the project has no potential to create mosquito habitat. There will be no project impacts related to vectors.

- c) **Less Than Significant Impact.** There are no schools within ¼ mile of the Phase 8 project area. The closest schools are located in Lone Pine, over 5 miles from the project site. Additionally, hazardous materials use will be limited to fuels for construction vehicles. Since these materials will be properly handled (as described above), the impact on the schools from hazardous materials will be less than significant.
- d) **No Impact.** Section 65962.5 of the California Government Code requires the California Environmental Protection Agency (CalEPA) to update a list of known hazardous materials sites, which is also called the “Cortese List.” The sites on the Cortese List are designated by the State Water Resources Control Board, the Integrated Waste Management Board, and the Department of Toxic Substances Control.

Based on a search of hazardous waste and substances sites listed in the Department of Toxic Substances Control (DTSC) “EnviroStor” database; a search of leaking underground storage tank (LUST) sites listed in the State Water Resources Control Board (SWRCB) “GeoTracker” database; and a search of solid waste disposal sites identified by the SWRCB with waste constituents above hazardous waste levels outside the waste management unit, there were no sites listed on or adjacent to the project site. Therefore, the project will have no impact related to hazardous waste sites.

- e) and f) **No Impact.** Seven public access airports and six private airstrips are located throughout Inyo County (Inyo County, 2001). The Lone Pine Airport is closest to the project site; it is located approximately 3.6 miles to the north. However, the project does not propose new tall structures and the project area is not located sufficiently near either a private airstrip or public airport to pose a safety risk. Therefore, there will be no project-related impacts on airport safety.
- g) **Less Than Significant Impact.** Gravel haul routes are predominantly on internal Owens Dry Lake roadways (**Figure 4**) and thus are not part of an emergency evacuation plan route. From the F.W. Aggregate or the LADWP Shale pit, gravel trucks would cross SR 136. However, since Owens Dry Lake is not designated as an emergency staging area, the project will have a less than significant impact on emergency access and evacuation plans.
- h) **Less Than Significant Impact.** The project area is not typically subject to wildland fires and the project site is essentially devoid of vegetation. Habitable structures do not exist and none are proposed for the project site. The gravel layer and geotextile membrane that are

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proposed for the site would not alter the existing low risk of fire. Therefore, the project will have a less than significant impact related to wildland fires.

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2.3.9 Hydrology and Water Quality

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion: The floor of the Owens Valley ranges in elevation from a low of approximately 3,550 feet above mean sea level (MSL) on the Owens dry lakebed to the south to approximately 4,100 feet above MSL near Bishop to the north. Topographically, the bed of Owens Dry Lake is relatively flat with only 50 feet of topographic relief from the historic shore to the lowest portion of the lakebed. The lakebed can be divided into two main areas including the brine pool (below an elevation of 3,553.53 MSL) and the playa (the area between the brine pool and the historic shoreline at 3,600 MSL). The playa generally consists of laustrine and alluvial sediments

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ranging in size from fine gravels to clays and containing a high salt content. The brine pool is the remnant portion of the historic Owens Lake and contains a high accumulation of mineral salts. The brine pool is generally wet during part of the year, depending on the amount of precipitation and runoff from the surrounding mountains.

- a) and f) **Less than Significant Impact.** Beneficial uses and water quality objectives are specified in the Water Quality Control Plan for the Lahontan Region (Basin Plan) prepared by the Lahontan Regional Water Quality Control Board (Regional Board, 2005). Relevant to the project site, beneficial uses are designated for Owens Lake and Owens Lake wetlands (Table 5).

Table 5
Beneficial Uses of Owens Lake
(Regional Board, 2005)

Surface water	MUN	ARG	GWR	REC-1	REC-2	COMM	WARM	COLD	SAL	WILD	WQE	FLD
Owens Lake				X	X	X	X	X	X	X		
Owens Lake Wetlands	X	X	X	X	X		X	X		X	X	X

MUN – municipal and domestic supply; ARG – agricultural supply; GWR – groundwater recharge, REC-1 – water contact recreation; REC-2 – noncontact water recreation; COMM – commercial and sportfishing; WARM – warm freshwater habitat; COLD – cold freshwater habitat, SAL – inland saline water habitat; WILD – wildlife habitat, WQE – water quality enhancement; FLD - flood peak attenuation/flood water storage.

Source: Regional Board, 2005.

Waterbody-specific numeric objectives for the protection of these beneficial uses are not specified in the Basin Plan for Owens Lake. However, narrative and numeric water quality standards applicable to all surface waters (including wetlands) in the region are applicable for: ammonia, coliform bacteria, biostimulatory substances, chemical constituents, total residual chlorine, color, dissolved oxygen, floating materials, oil and grease, non-degradation of aquatic communities and populations, pesticides, pH, radioactivity, sediment, settleable materials, suspended materials, taste and odor, temperature, toxicity, and turbidity.

No waste discharges are associated with operation of the proposed project. Groundwater dewatering is not anticipated to be required for project construction or operation, therefore there will be no project-related impacts related to dewatering discharges. During project construction, disturbance to surface soils will result from land leveling, berm construction, Corridor 1 expansion, preparation of the stockpile location, and potentially excavation of a tunnel for the gravel conveyor system under SR 136. Since site disturbance would exceed 1 acre, during construction, stormwater will be managed in accordance with BMPs identified in a SWPPP completed in compliance with the NPDES General Permit for Storm Water Discharges Associated with Construction Activity (General Permit). With implementation of the required SWPPP, potential increases of sediment load in stormwater will not adversely

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affect surface water beneficial uses and impacts will therefore be less than significant. The impact on water quality will be less than significant.

- b) **Less than Significant Impact.** Construction of the project, and infrequent gravel replenishment maintenance activities, will require the use of water trucks to control fugitive dust. Water trucks will be filled from existing J stands off the Main Line pipeline; the water source is the Los Angeles Aqueduct and therefore originally Owens Valley surface or groundwater. Otherwise, construction and operation of the Phase 8 gravel DCMs will not require the use of groundwater. Since the geotextile to be used for the project is permeable, the project will not alter groundwater recharge at the site. Therefore, impacts on groundwater will be less than significant.
- c), d), and e) **Less than Significant Impact.** Construction of the berms around the gravel areas in order to prevent washout will alter the existing drainage pattern of the Phase 8 area. Under existing conditions, Corridor 1 impedes some stormwater flows from the Owens River from reaching the Phase 8 area. Construction of a berm on the north side of Phase 8 Area A will further direct stormflows toward the brine pool. Similarly, construction of the berms around Area B will direct flows toward the T-36 Shallow Flooding areas and then toward the brine pool. As under existing conditions, some of the debris carried by these flows deposit on the north side of the T-36 Shallow Flooding areas. Modifications in the drainage pattern resulting from the project will not result in substantial erosion or siltation, flooding, or add a substantial source of polluted runoff. Since the drainage pattern from the project sites flows in the same direction as existing conditions and eventually to the brine pool, the impact on drainage pattern and stormwater drainage will be less than significant.
- g) and i) **No Impact.** A 100-year floodplain has been delineated on the Owens River and most of Owens Dry Lake below the historic shoreline (Federal Emergency Management Agency [FEMA], 1986). The southern portion of the Phase 8 project area is located within the mapped 100-year floodplain. However, no habitable structures are proposed as part of the project. The redirection of flood flows will not risk habitable structures since none are present on the lake. No levees or dams are present on the project sites and no off-site levees or dams will be modified as part of project implementation. The project will have no impact on housing or structures in a 100-year flood hazard area.
- h) **Less than Significant Impact.** Berms will protect the gravel areas from inundation and washout and, as under existing conditions, stormwater will flow towards the brine pool. For Phase 8 Area A, existing Corridor 1 will provide inundation protection for the gravel area, and stormwater flows will continue to be directed toward the T-36 Shallow Flooding areas and then toward the brine pool. New berms to be constructed around Phase 8 Area B will also direct stormflows toward the T-36 areas and then to the brine pool. Since this is the existing direction of stormwater flows, impacts on redirection of flood flows will be less than significant.
- j) **Less than Significant Impact.** Due to the distance to the ocean, tsunami is not relevant for the proposed project. Depending on volume conditions, localized seiche of the brine pool is possible but would not expose people or structures to loss, injury or death. Due to the low relief of the Owens Dry Lake area, mudflows are not likely, and would not impact habitable structures since none are present. Since earthquake-induced damage to the geotextile

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membrane or gravel layer could be readily repaired by re-installing of the facilities, the impact is less than significant.

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2.3.10 Land Use and Planning

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

- a) **No Impact.** The proposed project is located in an area zoned for open space and with a General Plan designation of SFL (Inyo County, 2010). The closest communities to the Phase 8 project site are located outside the historic Owens lakebed; Lone Pine is approximately 5.4 miles to the north and Keeler is approximately 7 miles to the southeast. No habitable structures are located on or immediately adjacent to the project site, and none are planned as part of the proposed project. Therefore, there will be no project-related impacts on established communities.
- b) **Less Than Significant Impact.** Use of the Phase 8 project site as gravel dust control area is considered relevant to CSLC, Inyo County, GBUPCD, and BLM planning. As discussed below, the Phase 8 project would be consistent with existing land use plans and policies and project-related impacts on land use would therefore be less than significant.

The Phase 8 project area is located on historic Owens lakebed owned and operated in trust for the people of the State of California by the CSLC. A lease from CSLC would be required in order to install gravel as a DCM on the Phase 8 property. No other land use approvals would be required. In granting the lease, CSLC would consider the Public Trust Doctrine. Public Trust Doctrine embraces the right of the public to use the navigable waters of the State for bathing, swimming, boating, and general water-related recreational purposes (CSLC, 2007). Additionally, the Public Trust Doctrine is sufficiently flexible to encompass changing public needs, such as to include the preservation of the lands in their natural state for scientific study, as open space and as wildlife habitat (CSLC, 2007).

GBUAPCD's 2008 SIP SEIR found that the proposed 15.1 square miles of DCMs would be consistent with public trust values of the Public Trust Doctrine since the dust program would maintain the current open space and assist in the natural resource preservation, while maintaining recreational opportunities. For the Phase 8 area, installation of the geotextile membrane and gravel layer will not alter site access for public recreation, aesthetic impacts will be minimized by gravel color blending, and biological resources impacts will be

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mitigated by implementation of the existing Habitat Management Plan (LADWP, 2010b) as well as mitigation measures related to construction impacts specified in Section 2.3.4. The Phase 8 project is a part of the larger Owens Lake Dust Mitigation Program with the goal of reducing air pollutant emissions for the protection of public health. Since the site is not inundated, the area is not currently a navigable waterway and installation of the gravel layer would not alter that condition. Additionally, the Phase 8 project does not constitute an irrevocable change in land use – at some point in the future if other dust mitigation concepts are identified and implementable, gravel could be removed and the site could be returned to existing conditions or other conditions as required to control dust emissions. For these reasons, and since a gravel layer for dust control was previously implemented (Corridor 1 project), the Phase 8 project would be consistent with the Public Trust Doctrine and impacts on land use would be less than significant.

Inyo County General Plan. The Land Use Element of the Inyo County General Plan (2001) includes Policy LU-5.6 State and Federal Lands Designation (SFL): This designation applies to those State- and Federally-owned parks, forests, recreation, and/or management areas that have adopted management plans. The Conservation/Open Space Element of the Inyo County General Plan (2001) includes Policy REC-1.2 Recreational Opportunities on Federal, State, and LADWP Lands: Encourage the continued management of existing recreational areas and open space, and appropriate expansion of new recreational opportunities on federal, state, and LADWP lands. Once the geotextile membrane and gravel are installed, the site would remain as open space - no fences, barriers, or other obstructions are proposed. Temporary (up to 20 months during construction) restrictions in on public access for recreation may be required to maintain public and worker safety.

GBUAPCD State Implementation Plan. The 2008 SIP addressed the placement of 15.1 square miles of DCMs on Owens Dry Lake including 9.2 square miles of Shallow Flooding, 3.5 square miles of Moat and Row DCMs, 0.5 square mile of channel area that may require DCMs, and 1.9 square miles of Study Area of which some or all may require controls after 2010. A portion of the currently proposed Phase 8 area was included in the 1.9 square miles identified as study area for the 2008 SIP but not proposed for any specific DCMs. [The 2008 SIP Study Area designation in this northwest area of the lake is approximately 0.72 square miles; of this area, approximately 0.65 square miles overlap with Phase 8 Area A.] Since it would reduce dust emissions from 2.03 square miles of the lake, the project is consistent with the SIP developed by GBUAPCD for the purpose of mitigating air pollutant conditions in the Owens Valley Planning Area (GBUAPCD, 2008a). The boundaries of the Phase 8 area were provided to LADWP by GBUACPD in December 2009 (T. Schade pers. comm., 2009).

Bureau of Land Management. The majority of the Phase 8 project site does not overlap with the 15,790-acre Bishop Resource Management Plan Owens Lake Management Area managed by BLM; the Ridgecrest Resource Area of the California Desert Conservation Area managed by BLM per the California Desert Conservation Area Plan (CDCAP); or the wilderness areas, national parks, and national preserve managed by BLM under the California Desert Protection Act. The conveyor location is located within both the Bishop Resource Management Plan Area and the Ridgecrest Resource Area. However, installation

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of the conveyor will require approval from BLM. Accordingly, there will be no adverse impacts on these BLM land use plans and policies.

- c) **Less than Significant Impact.** Please see Section 2.3.4 Biological Resources, item f.

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2.3.11 Mineral Resources

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion: The Owens Lake Planning Area contains known mineral resources of statewide or regional importance. U.S. Borax (parent company Rio Tinto Mining) mines evaporite minerals from 16,000 acres of leased land on the west side of the lake. Minerals mined include trona (hydrated sodium bicarbonate carbonate), bakerite (silicate) and halite (sodium chloride). Because minerals are mined from the surface, the facility is sensitive to surface water changes on the lake.

Other important mineral resources surrounding the Owens Dry Lake area include gravel deposits associated with alluvial fans and sand deposits associated with the Owens River and local dunes.

Inyo County is the Lead Agency for the processing of surfacing mining reclamation plan applications on private lands, Inyo County's Road Department, City of Los Angeles, and California Department of Transportation borrow pits, and surface mining on federally administered lands. All surface mining operations that disturb greater than 1 acre or move more than 1,000 cubic yards or more are required to have an approved reclamation plan before the start of mining activity. Reclamation plans are required by SMARA to assure that:

- Adverse environmental effects are prevented or minimized and mined lands are reclaimed to a useable condition readily adaptable for alternate land uses.
- Production and conservation of minerals are encouraged, while considering recreation, watershed, wildlife, aesthetic, range and forage values.
- Residual hazards to public health and safety are eliminated.

LADWP's shale pit has an approved Reclamation Plan on file with the County and reviewed by BLM (2005-03/LADWP).

a) and b) **Less Than Significant Impact.** The Phase 8 project area is approximately 1.5 miles north of the most northerly portion of the U.S. Borax mineral lease area on Owens Dry Lake; approximately 9 miles north of active mining operations. Construction activity required for the implementation of the Phase 8 project would not occur on or near the active mining operations or within the U.S. Borax mineral lease area. The project site would be bermed to protect the gravel layer from stormflows, and flows would drain towards the brinepool. The

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project would not increase the volume of storm flows to the brine pool, and due to the distance of the Phase 8 area from the mining operations, these stormwater flows would not substantially increase flooding potential or debris deposition in the brine pool over existing conditions. Project-related impacts to known mineral resources on Owens Dry Lake will be less than significant.

Implementation of the project includes use of local mineral resources. Approximately 1.04 million tons of gravel will be distributed within the Phase 8 boundaries (1.01 million tons in Area A and 0.03 million tons in Area B). Gravel will be obtained from local gravel production operations - the LADWP shale pit and the F.W. Aggregate Dolomite mine (Figure 4). Ample aggregate is available from these sources for the project. Three subareas of the Dolomite mine (Durability, North Pole, and Translucent) total approximately 480 acres and are able to produce up to 50 million tons (T. Lopez, pers. comm., June 25, 2010). The LADWP shale pit (State Mine ID Number 91-14-0130) is currently permitted for 40 acres of development (approximately 200,000 – 400,000 tons of shale), with potential for expansion. The proposed project will include the use of locally-important mineral resources, but will not result in a substantial loss of availability of the resource. Since mineral resources will still be available, impacts on mining operations adjacent to Owens Dry Lake will be less than significant.

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2.3.12 Noise

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion: Owens Dry Lake is located in a remote area of the upper Mojave Desert where the main sources of noise are the mining operations on the lakebed, construction and maintenance activities related to the DCMs, and roadway noise along U.S. 395, SR 190, and SR 136. Sensitive noise receptors in the Owens Dry Lake area include residents in the communities of Lone Pine, Olancho, Keeler, Swansea, Dolomite, Bartlett, and Cartago.

Per the Public Safety Element of the Inyo County General Plan (2001), the normally acceptable noise level for residential properties ranges up to 60 Ldn and conditionally acceptable noise level ranges up to 70 Ldn. The term “Ldn” refers to the average sound exposure over a 24-hour period. Ldn values are calculated from hourly Leq values, with the Leq values for the nighttime period (10:00 p.m. to 7:00 a.m.) increased by 10 dB to reflect their greater disturbance potential.

a) and d) **Less Than Significant Impact.** The closest noise receptor to the Phase 8 gravel area is a residence located at the junction of Main Line Road and U.S. 395, approximately 1.8 miles northwest of the project site. Along the gravel haul route from the mines, aside from LADWP’s Sulfate Facility, the closest noise receptors would be the residents in Keeler (located approximately 0.8 miles northwest from where the haul trucks will cross SR 136 going to and from the LADWP Shale Pit) and Swansea (approximately 0.7 miles from the Dolomite mine haul route). The closest school is in Lone Pine, over 5 miles north of Owens Dry Lake.

During construction of the Phase 8 project, noise will be generated from dozers, flatbed trucks, water trucks, and dump trucks at the 2.03 square miles of the Phase 8 site and along the gravel truck haul routes. Noise will be noticeable to on-lake workers and potentially persons visiting the lake for recreation. The minimum distance of 0.7 miles between residents and the site and the haul routes is considered sufficient distance to minimize noises generated from construction activities. For example, construction equipment emitting 90 dBA at 50 feet would attenuate to 64 dBA at 1,000 feet (Canter, 1977). Additionally, construction activity will not occur during 10:00 p.m. to 7:00 a.m. when there is greater potential for noise disturbance to residences. Therefore, given the distance from the project site and the haul routes (and the potential conveyor system) to sensitive residential receptors, the project will not cause noise levels to exceed established thresholds and noise impacts will be less than significant.

- b) **Less Than Significant Impact.** Equipment used to tunnel the conveyor system under SR 136 may create minor groundborne vibration or groundborne noise. Since the closest buildings to this crossing are over 0.8 miles away and since construction for the conveyor tunnel would take less than 1 month, impacts related to temporary groundborne vibration or noise will be less than significant.
- c) **Less Than Significant Impact.** Noise generated during project operation will include equipment noise related to periodic replenishment of the gravel. Since fewer trucks will be required, the noise impact will be less than that for project construction. Due to the distance to the nearest receptors (approximately 1.8 miles to the gravel area and 0.7 miles to the haul route), noise impacts from project operation will be less than significant.
- e) and f) **No Impact.** Seven public access airports and six private airstrips are located throughout Inyo County (Inyo County, 2001). The Lone Pine Airport is closest to the project site; it is located approximately 3.6 miles to the north. Therefore, the project is not located sufficiently near either a private airstrip or public airport to expose people residing or working in the area to experience excessive noise levels. There will be no project-related impacts on noise near an airport/airstrip.

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2.3.13 Population and Housing

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **Less Than Significant Impact.** Since the project does not include construction of homes or businesses, it will not directly impact population growth in the Owens Dry Lake area. However, construction of the project will require up to 125 workers for site preparation, gravel transport, and geotextile membrane and gravel installation. These workers may be LADWP staff or a mix of LADWP staff and contractors. This minor number of workers over an approximately 20 month construction period would have a less than significant impact on population growth.
- b) and c) **No Impact.** No habitable structures are located on or immediately adjacent to the Phase 8 project site, and none are planned as part of the proposed project. Therefore, there will be no impacts on housing from construction and operation of the Phase 8 project.

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2.3.14 Public Services

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

a)-i – v) **No Impact.** Habitable structures are not present on the project site and none are proposed as part of the project. Installation of gravel on the project will not increase fire risk on the property. The limited number of construction workers required to implement the project would not generate substantial population growth or create the need for new or expanded public services. Therefore, there will be no project-related impacts on fire, police protection, schools, parks, or other public facilities.

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2.3.15 Recreation

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion:

- a) **No Impact.** Habitable structures are not present on the project site and none are proposed as part of the project. The limited number of construction workers required to implement the project would not generate substantial population growth or create the need for new or expanded parks. Therefore, the project will have no impact on neighborhood or regional parks or other recreation facilities.
- b) **No Impact.** The project does not include the construction of recreational facilities or generate population growth that would require the construction or expansion of recreational facilities. Therefore, there will be no impact on recreational facilities. However, the Owens dry lakebed is openly accessible to the public for recreation. During construction of the Phase 8 project, access may be temporarily limited if determined by LADWP to be necessary for public and/or worker safety. If approved by CSLC, signs may be posted indicating restricted construction areas.

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2.3.16 Transportation and Traffic

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Discussion: Major roadways around Owens Dry Lake include U.S. 395, SR 136, and SR 190. Roads located on the lakebed relevant to the Phase 8 project include Sulfate Road, T-30 Road, and Main Line Road.

U.S. 395 – U.S. 395 is the main north-south transportation route through Inyo County and the Owens Valley. The majority of U.S. 395 adjacent to the lake is a four-lane divided highway.

SR 136 – SR 136 is a two-lane northwest/southeast highway connecting U.S. 395 to the north and SR 190 to the south. SR 136 has 12-foot-wide lanes with unimproved gravel shoulders in each direction in the vicinity of Owens Dry Lake. Travel to and from the source mines for the Phase 8 dust control project will cross SR 136.

SR 190 – SR 190 is a two-lane southwest/northeast highway connecting U.S. 395 to the west and SR 136 to the east. SR 190 has 12-foot-wide lanes with unimproved gravel shoulders in each direction in the vicinity of Owens Dry Lake.

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Additionally, as part of implementation of the DCMs, an internal network of roadways has been constructed on Owens Dry Lake. The Main Line Road roughly bisects existing dust control areas in the south and along the east side of the lake; the roadway crosses the Owens River in the north and is located north of the Phase 8 project area. From the LADWP Shale Pit, gravel trucks will cross SR 136 and connect to Sulfate Road. From the Dolomite mine, gravel trucks will cross SR 136 and connect to Road T-30.

- a) and b) **Less Than Significant Impact.** Level of Service (LOS) is a qualitative measure describing operational conditions within traffic stream, or their perception by motorists and/or passengers which is calculated based on a number of design and operating criteria, such as lane width, roadside obstacles, trucks and busses, curvature, grades, etc. (Transportation Research Board, 2000). LOS A reflects free-flow conditions; at LOS E a road is operating at capacity and is congested. Typically, LOS C or LOS D represents acceptable flow conditions. The highway capacity as determined by the Highway Capacity Manual 2000 for a two-lane highway is 1,600 passenger cars per hour (pc/h) for each direction of travel; the capacity of a two lane-highway is 3,200 pc/h for both directions of travel combined. Based on 2008 traffic counts reported by Caltrans, U.S. 395, SR 136, and SR 190 all operate well below capacity at LOS A (Caltrans, 2009).

Gravel haul routes for construction of Phase 8 will be contained within the on-lake roadway network to the maximum extent possible. During mobilization for the project, vehicles required for construction (dozers, flatbed trucks, water trucks) may be transported to the site via U.S. 395, SR 136, and/or SR 190. It is anticipated that vehicles will be transported to the site once, remain on-site for the 20-month construction period, and then be demobilized. Based on the limited number of vehicles to be mobilized and the existing excellent LOS on these roadways, project-related impacts on U.S. 395 and SR 190 will be temporary and less than significant.

However, project-related traffic will cross SR 136 throughout the construction period. In 2008, average annual daily traffic (AADT - total traffic volume for the year divided by 365 days) for SR 136 ranged between 600 vehicles at the junction of U.S. 395 and approximately 420 vehicles at the junction with SR 190 (Caltrans, 2009), well below the 1,600 pc/hr capacity for each direction of travel. The truck AADTs were 14 (at the junction with U.S. 395) and 11 (at the junction with SR 190) (Caltrans, 2009).

Gravel haul trips will be on-going for the 20-month period (1 month for Corridor 1 expansion and 19 months for gravel transport to the stockpile location). Approximately 40 dump trucks will be used to haul gravel from the mines on the east side of the lake to the stockpile location. At approximately 130 trips per day and a 10 hour work day, approximately one truck would cross SR 136 every 2.3 minutes. Gravel trucks would not travel on SR 136 and add to the average daily traffic volumes, but would cross SR 136 approximately 260 times per day (either connecting to Sulfate Road or T-30 roadway). This estimate is considered a worst-case assumption, since use of the gravel conveyor system from the LADWP Shale pit under SR 136 to LADWP property off Sulfate Road would substantially reduce the number of truck crossings at SR 136. The peak hour traffic volume on SR 136 was 80 vehicles in 2008 (Caltrans, 2009). Since it operates well below capacity and at LOS A, the addition of approximately 26 trucks crossing SR 136 per hour would not substantially degrade the level

of service on this roadway and project-related impacts on traffic would be less than significant.

- c) **No Impact.** The project areas are not located sufficiently near either a private airstrip or public airport, nor does the project contain features that will alter air traffic patterns. The Lone Pine Airport is located approximately 3.6 miles north of the lake. No impacts on air safety will occur.
- d) **Less Than Significant Impact with Mitigation Incorporated.** Expansion of the most northerly 0.3 miles of Corridor 1 (from 12 to 30 feet wide, expanded to the east) is proposed as part of the project. The expansion is proposed to allow safe travel of gravel trucks in two directions near the stockpile location. This expansion will prevent a roadway hazard.

However, construction of the project is estimated to require approximately 260 truck crossings of SR 136 per day. Since these crossings are not signalized and would be on-going for approximately 20 months, impacts related to traffic hazards are potentially significant. Additionally, degradation of the road surface on SR 136 at these crossing could result from traffic related to Phase 8 construction. With implementation of mitigation measures Trans-1 and Trans-2 (Traffic Work Safety Plan and repair of roadway damage at the SR 136 crossings), impacts will be reduced to a less than significant level.

- e) **Less Than Significant Impact.** Owens Dry Lake is currently accessible to emergency vehicles via SR 136/Sulfate Road, SR 190/Dirty Socks access road, and U.S. 395/North and South Main Line access roads. Construction of the proposed project will increase the volume of trucks travelling on these roadways but will not alter the access points. The impact of the addition of approximately 26 truck trips per hour will be less than significant on emergency access.
- f) **No Impact.** The project does not include housing, employment, or roadway improvements relevant to alternative transportation measures. Therefore, there will be no project-related impacts on alternative transportation.

Mitigation Measures to Reduce Impacts on Transportation and Traffic

Trans-1. LADWP shall develop and implement a Traffic Work Safety Plan to be approved by Caltrans for the construction phase of the Phase 8 project. The Plan will address the use of warning lights, signs, traffic cones, signals, flag persons and/or comparable measures as needed to maintain safe travel of haul trucks across SR 136 during construction.

Trans-2. LADWP shall repair damage to SR 136 in the areas near the mines where project-related truck traffic crosses SR 136. Prior to the start of construction activity, existing conditions at the crossings will be documented. After construction of Phase 8 is complete, physical damage documented at the SR 136 crossings will be repaired.

With implementation of the above mitigation measures, project-related impacts on transportation and traffic will be less than significant.

Section 2 – Environmental Analysis

2.3.17 Utilities and Service Systems

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion:

- a), b), d) and e) **Less Than Significant Impact.** Habitable structures are not present on the project site and none are proposed as part of the project. The limited number of construction workers required to implement the project would not generate substantial population growth or create the need for new or expanded water or wastewater service. At any one time, the maximum number of construction workers necessary for Phase 8 is estimated at 125 workers. Wastewater generated at portable toilets or pumped from the septic system at the Sulfate Facility is treated by the Lone Pine Community Services District in compliance with the requirements of the Lahontan Regional Water Quality Control Board. In addition to the negligible potable water demand from construction workers, construction of the project will require water for dust control. The impact on water and wastewater is less than significant.
- c) **Less Than Significant Impact.** The existing Phase 8 area does not have storm drain infrastructure or connect to any off-site storm drain facilities. The gravel areas will be surrounded by earthen berms as necessary to protect the Phase 8 area from periodic high flows from the Owens River. Since stormflows will drain in the direction of brine pool (as under existing conditions), impacts on storm water facilities will be less than significant.

- f) and g) **Less Than Significant Impact.** Installation of a geotextile membrane and gravel layer on the Phase 8 project area will not generate substantial volumes of solid waste. The limited volumes of solid waste generated by construction workers will be disposed at a permitted landfill in compliance with applicable regulations. As reported in the 2008 SIP SEIR, the Lone Pine Landfill serves the Owens Lake Planning Area and has a remaining site life of over 60 years (GBUAPCD, 2008b). Therefore, impacts related to solid waste disposal will be less than significant.

Section 2 – Environmental Analysis

2.3.18 Mandatory Findings of Significance

Issues and Supporting Information Sources	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, effects of other current projects, and the effects of probable future projects.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discussion:

- a) **Less Than Significant Impact With Mitigation Incorporated.** Project construction and maintenance will have a potentially significant impact on a sensitive bird species, Western Snowy Plover. Mitigation measures have been defined to protect plovers, including nesting plovers, from inadvertent disturbance and harm during construction. Therefore, with implementation of mitigation measures, impacts on biological resources will be less than significant.

Cultural resources are present on the project site. Mitigation measures have been defined to avoid existing resources, and to monitor earthwork during construction for unknown resources. Therefore, with implementation of mitigation measures, impacts on cultural resources will be less than significant.

- b) **No Impact.** This goal of the project is to be part of the long-term solution for dust control on Owens Dry Lake and to contribute to the attainment of the NAAQS for PM₁₀. There are no short-term goals related to the project that will be disadvantageous to this long-term goal.
- c) **Less Than Significant Impact.** Cumulatively with other DCMs on the lake, the project will be beneficial for air quality. Project construction may be concurrent with other construction or maintenance activity on the lake. Mitigation measures have been identified to reduce air pollutant emissions from construction and to address safety concerns from truck traffic. Therefore, with implementation of mitigation measures, cumulative impacts with other construction and maintenance activities on the lake will be less than significant.

- d) **Less Than Significant Impact With Mitigation Incorporated.** This goal of the project is to be part of the long-term solution for dust control on Owens Dry Lake and to contribute to the attainment of the NAAQS for PM₁₀ – a beneficial impact on human beings. Temporary impacts on air quality and traffic safety will occur during project construction. However, mitigation measures have been identified to reduce these impacts to less than significant levels.

Section 3

References, Abbreviations and Report Preparation

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3.2 ACRONYMS AND ABBREVIATIONS

AADT	average annual daily traffic
AFY	acre-feet per year
APE	Area of Potential Effect
AQMP	Air Quality Management Plan
BACM	Best Available Control Measure
Bgs	below ground surface
BLM	(United States) Bureau of Land Management
BMPs	best management practices
BNHM	Berkeley Natural History Museum
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CAT	Climate Action Team
CCR	California Code of Regulations
CCRI	Climate Change Research Initiative
CDF	California Department of Forestry
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CNDDDB	California Natural Diversity Database
CRHR	California Register of Historic Resources
CSLC	California State Lands Commission
DCM	dust control measure
DTSC	Department of Toxic Substances Control
DWR	(California) Department of Water Resources
EIC	Eastern Information Center (at University of California at Riverside)
EIR	Environmental Impact Report
EPA	(United States) Environmental Protection Agency
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program

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FSEIR	Final Subsequent Environmental Impact Report
GBUAPCD	Great Basin Unified Air Pollution Control District
GCDIS	Global Change Data and Information System
GCRIO	Global Change Research Information Office
GHG	greenhouse gas
GLO	(United States) General Land Office
HCP	Habitat Conservation Plan
Hp	Horsepower
ICWD	Inyo County Water Department
IS	Initial Study
LADWP	(City of) Los Angeles Department of Water and Power
LGP	low ground pressure
LOS	Level of Service
LUST	leaking underground storage tank
mm	millimeters
MND	Mitigated Negative Declaration
MOA	Memorandum of Agreement
MSHA	Mine Safety and Health Administration
MSL	mean sea level
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NAST	National Assessment Syntheses Team
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OLDMP	Owens Lake Dust Mitigation Program
OLHMP	Owens Lake Habitat Management Plan
OSHA	Occupational Safety and Health Administration
pc/h	passenger cars per hour
PM	particulate matter
PM10	particulate matter 10 microns or less in diameter
SCR	supplemental control requirement
SFL	State and Federal Lands

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SIP	State Implementation Plan
SLC	State Lands Commission
SMARA	Surface Mining and Reclamation Act
SNA	Significant Natural Areas
SPCC	Spill Prevention Control and Countermeasure
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USCCSP	United States Climate Change Science Program
USEPA	United States Environmental Protection Agency
USGCRP	United States Global Change Research Program
USGS	United States Geological Survey
UWMP	Urban Water Management Plan

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